

## JIANWEI LI

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Profile website: <http://www.tnstate.edu/faculty/jli/>

Lab website: <http://jwli.weebly.com>

Google Scholar: <https://scholar.google.com/citations?user=y5t9dOUAAAAJ&hl=en>

### EDUCATION

Ph.D. 2009. Duke University Nicholas School of The Environment, Durham NC

B.S. 2001. China Agricultural University, Beijing, China.

### ACADEMIC POSITIONS

*Associate Professor*, 07/2020 – present. Dept. of Agricultural and Environmental Sciences, Tennessee State University (TSU).

*Assistant Professor*, 07/2014 – 06/2020. Dept. of Agricultural and Environmental Sciences, Tennessee State University (TSU).

*Visiting Faculty*, 06/2015 – 08/2015; 06/2016 – 08/2016. Climate Change Science Institute, Environmental Science Division, Oak Ridge National Laboratory

*Postdoctoral Fellow*, 05/2012 – 06/2014 Dept. of Plant Biology and Microbiology, University of Oklahoma, Norman, OK.

*Visiting Scientist*, 02/2010 – 04/2010. Memorial University of Newfoundland, St Johns, Canada

*Postdoctoral Fellow*, 05/2009 – 04/2012 Dept. Ecology and Evolutionary Biology, University of Kansas (KU), Lawrence, KS.

*Graduate Research and Teaching Assistant*, 08/2003 – 05/2009 Nicholas School of the Environment, Duke University, Durham, NC.

*Research Technician*, 07/2001- 07/2003 Soil and Fertilizer Institute, Chinese Academy of Agriculture Sciences (CAAS), Beijing, China

### RESEARCH AREA AND FOCUS

Since July 2014, I have successfully built an interdisciplinary research program in Climate Change and Soil Biogeochemistry at Tennessee State University (TSU). The program promoted climate change research, science education, and leadership development toward minority students. I have acquired extramural funding of up to \$10.6 million in total from USDA, NSF, and DOE and \$2.4 million worth of projects as the principal investigator (PI). I have published more than 40 peer-reviewed articles in top notched and my work has received > 2,500 citations with an h-index of 23; I gave invited guest lectures and professional talks and established strong collaborations with high-caliber scholars in the United Kingdom, China, Germany, and the US; I have served as associate editor, editorial board member, and special issue guest editor in several international journals, as ad hoc reviewer for > 30 international journals and as a proposal review panelist for DOE, USDA, NSF, and EPA. I supervised 32 young scholars ranging from postdoctoral researchers, graduate, and undergraduate students to international visiting scientists, representing a range of diversity in race, color, and gender, and these scholars are equipped with the knowledge to advance climate science and propelled to work as ecological frontline workers in climate change mitigation and adaptation in different countries and regions.

My research seeks to understand how climate change factors alter microbial processes and the degree to which these changes affect long-term carbon and nutrient cycling in soils and terrestrial ecosystems (e.g., bioenergy cropland). My interdisciplinary research integrates field and laboratory observations as well as integrated data assimilation and deep learning approaches to address questions that intersect external disturbances and terrestrial biogeochemical cycles. My current research projects focus on (1) thermal variations and nitrogen fertilization on mineralization of soil organic matter in croplands; (2) assimilating long-term field and incubation data with mechanistic models to improve soil model predictions in response to climate warming; and (3) engagement of minority community members in climate leadership skill development (e.g., climate science and outreach, international climate negotiation).

### **AWARD AND HONOR**

Outstanding Graduate Student Mentor Award at the College of Agriculture, Tennessee State University 2024

Awarded Certificate of Climate Law and Governance at Cambridge University and University of Dubai 2023

Outstanding Researcher Faculty Award at the College of Agriculture, Tennessee State University 2023

Awarded Certificate of Recognition of *Platinum Level Scholar* at Tennessee State University 2020

Awarded Certificate of Climate Change and Health at Yale School of Public Health, Yale University 2020

Outstanding Young Researcher Award at the College of Agriculture, Tennessee State University 2019

Awarded Visiting Faculty at Oak Ridge National Laboratory Department Of Energy (DOE). 2015, 2016

First Place in Graduate Student Oral Presentations in 38<sup>th</sup> University-wide Research Symposium at TSU, 2016 (as two student awardees' major advisor)

Outstanding Service to Sino-Ecologists Association Overseas, 2010

Oosting Student Fellow for Henry J. Oosting Memorial Lecture, Duke University 2009

### **RESEARCH FUNDING (\$10,628,776 IN TOTAL, PI \$2,362,194 SINCE 2014)**

Climate Smart Fiber Hemp: A Versatile Thread Connecting the Nation's Underserved Farmers, Climate Change Mitigation and Novel Market Opportunities. **Co-PI** with E Omondi. US Department of Agriculture. \$4,972,898, Project duration 8/2023-7/2028.

Collaborative Research: GP-GO: Climate Leaders Academy: a professional development opportunity in the geosciences. **Co-PI** with Leah Dundon (PI, Vanderbilt University). National Science Foundation. \$2,043,895 (TSU \$323,646), Project duration 01/01/2023-12/31/2025

On Improvement of Soil Organic Carbon Modeling and Simulation via Integrated Deep Learning and Data Assimilation Approaches. **PI** with M Mayes and F Hoffman (Co-PIs). US Department of Energy (DOE), Research Development and Partnership Pilot (RDPP), \$149,902, Project duration 09/01/2022-06/01/2024

Enhancing Crop Productivity and Reducing Nitrous Oxide Emissions in Corn and Soybean Cropping Systems. **Co-PI** with D Hui (PI) at TSU. US Department of

Agriculture Capacity Building Grant Program, \$502,853, Project duration 06/01/2022 – 05/31/2025

Mechanistic prediction of soil microbial response to temperature change and nitrogen fertilizer. **PI**, USDA-NIFA, \$500,000, Project duration 09/01/2021 – 08/31/2024

Microbial Communities in a Long-Term Agro-Ecosystem Research (LTAR) Aspirational Grazing System, 1890s Faculty Research Sabbatical Program, **PI**, USDA-ARS, \$124,850 (TSU \$114,850; ARS host \$10,000), Projection duration 09/01/2019 – 09/30/2022

Excellence in Research: mechanistic prediction of soil microbial response to temperature change. **PI**, NSF-HBCU UP, \$1,118,709, Project duration 06/01/2019 – 05/31/2023

MRI: Acquisition of Gas Analyzers to Strengthen Multidisciplinary Research and Education at Tennessee State University. **Co-PI** with D Hui (PI) at TSU. National Science Foundation, \$199,460, Project duration 06/01/2019 – 05/31/2022

Experimentally assessing and modeling thermal variations on the mineralization of soil organic carbon in agro-ecosystems. **PI**, USDA-NIFA Evans Allen Grant, \$21,000, Project duration 10/01/2018 – 09/31/2021

Transgenerational adaptation of plants to acidic pH and toxic metals in soil. **Co-PI** with S Zhou (PI) at TSU, USDA-NIFA Capacity Building Grant, \$499,999, Project duration 09/01/2018 – 08/31/2021

Evaluation and Improvement of Microbial-Enzyme Mediated Model Against Multiple Soil Incubation Experiments. **PI**, Subcontract with ORNL DOE, \$103,257, Project duration 01/17/2017 – 08/31/2020

Targeted Infusion Project-Academic Enhancement of Biology, Ecology and Environmental Sciences Programs at Tennessee State University. **Co-PI** with D Hui (PI) at TSU. National Science Foundation-HBCU-UP, \$370,953, Project duration 09/01/2016 – 08/31/2019

An Enhanced Study of Climate Warming on Soil Organic Carbon Using An Integrated Model-Data Approach. **PI**, USDA-NIFA Evans-Allen Grant, \$21,000, Project duration 01/18/2016 – 01/17/2019

Exploratory Study of Laccase Gene Responses to Climate Warming Along a Boreal Climate Transect in Eastern Canada. Postdoc participant with SA Billings (PI) at KU. Humber River Basin Project Newfoundland and Labrador, Canada, \$200,000, Project duration 05/01/2009 – 03/31/2012

US early career young scientist travel award- Enzymes in the Environment, \$1825. 2011

International travel award, 6<sup>th</sup> BIOGEOMON, \$500, 2009

Critical Zone Exploration Network (CZEN) Workshop travel award, \$1000, 10/2005

## **PUBLICATIONS (OF 50 IN TOTAL)**

(\* indicates corresponding author; *Italics* indicate students or post-docs working under my supervision)

*First author or corresponding author (27)*

- Wei D, Parajuli M, Jian S, Hui D, Fay P, and Li J\*. 2024. Effects of precipitation changes on soil heterotrophic respiration and microbial activities in a switchgrass mesocosm experiment. *European Journal of Soil Biology* 120:103602.
- Li J, Areeveso P, Wang X, Jian S, Gamage L (2022). Simulating Temperature in a Soil Incubation Experiment. *Journal of Visualized Experiments*. JoVE:e64081.
- Wang X, S Jian, L Gamage and J Li\*. 2022. Effect of nitrogen fertilization on central tendency and spatial heterogeneity of soil moisture, pH, dissolved organic carbon and nitrogen in two bioenergy croplands. *Journal of Plant Nutrition and Soil Science*. 1–15. <https://doi.org/10.1002/jpln.202100311>.
- Duan J, M Yuan, S Jian, L Gamage, M Parajuli, K Dzantor, D Hui, P Fay, and J Li\*. 2021. Soil extracellular oxidases mediated nitrogen fertilization effects on soil organic carbon sequestration in bioenergy croplands. *Global Change Biology Bioenergy* 3(8): 1303-1318.
- Jian SY, J Li\*, Wang G, Kluber L, Schadt C, Liang J, Mayes M. 2020. Multiple-year incubation experiments boost confidence in model projections of long-term soil carbon dynamics. *Nature Communications* 11(1): 5864
- Yuan M, J Duan, J Li\*, Jian SY, Gamage L, ED Dzantor, D Hui and Fay P. 2020. Effects of nitrogen fertilization and bioenergy crop species on central tendency and spatial heterogeneity of soil glycosidase activities. *Scientific Reports*. 10(1):19681.
- Li J, S Jian, C Lane, Y Lu, X He, M Mayes, K Dzantor, D Hui. 2020. Effects of nitrogen fertilization and bioenergy crop type on topsoil organic carbon and total nitrogen contents in Middle Tennessee USA. *Plos ONE* 15:e0230688
- Li J, S Jian, C Lane, C Guo, Y Lu, Q Deng, M Mayes, K Dzantor, D Hui. 2020. Nitrogen fertilization restructured spatial patterns of soil organic carbon and total nitrogen in switchgrass and gamagrass croplands in Tennessee USA. *Scientific Reports* 8:1211.
- Li, J. Sampling Soils in a Heterogeneous Research Plot. 2019. *Journal of Visualized Experiments*, (143), e58519, doi:10.3791/58519 (2019). Video link: <https://www.jove.com/t/58519/sampling-soils-in-a-heterogeneous-research-plot>
- Li, J, GS Wang, M Mayes, SD Allison, S Frey, S Zheng, XM Hu, YQ Luo, J Melillo. 2018. Reduced carbon use efficiency and increased microbial turnover with soil warming. *Global Change Biology* 25: 900-910.
- Chen J, YQ Luo, P Palacios, J Cao, M Dacal, X Zhou, J Li\*, J Xia, S Niu, H Yang, S Shelton, W Guo, KJV Groenigen. 2018. Differential responses of cellulase and ligninase activities to warming: implications for soil respiration. *Global Change Biology* 24: 4816-4826.
- Li J, S Jian, J de Koff, C Lane, G Wang, M Mayes, D Hui. 2018. Differential effects of nitrogen fertilization and warming on soil respiration and microbial dynamics in switchgrass croplands. *Global Change Biology Bioenergy* 10:565-576.
- Dong W, A Song, X Liu, B Yu, B Wang, Y Lu, Y Li, H Yin, J Li\*. F Fan. 2018. Warming differentially altered multidimensional soil legacy induced by past land use history. *Scientific Reports* 8: 1546.
- Liang F, J Li\*, S Zhang, H Gao, B Wang, X Shi, S Huang, MG Xu. 2018. Two-decade long fertilization induced changes in subsurface soil organic carbon stock vary with indigenous site characteristics. *Geoderma*. 337:853-862.
- Li J. CL Guo, SY Jian, C Yu, Q Deng, ED Dzantor and D Hui. 2017. Nitrogen fertilization elevated spatial heterogeneity of soil microbial biomass carbon and

- nitrogen in Switchgrass and Gammagrass croplands. *Scientific Reports* 8:1734.
- Liang F, **J Li\***, SM Huang, XY Yang, ZJ Cai, X Cui, MG Xu. 2016. Three-decade long fertilization induced soil organic carbon sequestration depends on edaphic characteristics in six typical croplands. *Scientific Reports* 6, 30350.
- Jian SY, **J Li\***, Chen J, Wang G, Mayes M, EK Dzantor, Hui D, Luo Y. 2016. Soil extracellular enzyme activities, soil carbon and nitrogen storage under nitrogen fertilization: a meta-analysis. *Soil Biology and Biochemistry* 101: 32-43.
- Chen J, YQ Luo, **J Li\***, XH Zhou, J Cao, R Wang, Y Wang, S, Shelton, Z Jin, L Walker, Z Feng, S Niu, W Feng, S Jian and L Zhou. 2016. Co-stimulation of soil glycosidase activities and soil respiration by nitrogen addition. *Global Change Biology* 23: 1328-1337.
- Li J**, GS Wang. SD Allison. MA Mayes. YQ Luo. 2014. Soil carbon sensitivity to temperature and carbon use efficiency compared across microbial-ecosystem models of varying complexity. *Biogeochemistry* 119:67-84.
- Xie HT, **J Li\***, B Zhang, L Wang, J Wang, H He, X Zhang. 2015. Long-term manure amendments reduced soil aggregate stability via redistribution of the glomalin-related soil protein in macroaggregates. *Scientific Reports* 5, 14687; doi:10.1038/srep14687.
- Li J**, YQ Luo, S Natali, EA Schuur, J Xia, Eva Kowalczyk, YP Wang. 2014. Modeling ecosystem carbon cycle and permafrost thaw under annual and seasonal warming at a tundra site in Alaska. *Journal of Geophysical Research: Biogeosciences*. 119 (6): 2013JG002569.
- Xie HT, **J Li\***, P Zhu, P Chang, JK Wang, HB He, XD Zhang. 2014. Long-term manure amendments enhance neutral sugar accumulation in bulk soil and particulate organic matter in a Mollisol. *Soil Biology and Biochemistry* 78:45-53.
- Li J**, SE. Ziegler, CS. Lane, SA Billings. 2013. Legacies of native climate regime govern the responses of boreal soil microbes to litter stoichiometry and temperature. *Soil Biology and Biochemistry* 66(0): 204-213.
- Li J**, SE. Ziegler, CS. Lane, SA Billings. 2012. Warming-enhanced preferential microbial mineralization of humified boreal soil organic matter: interpretation of soil profiles along a climate transect using laboratory incubation. *Journal of Geophysical Research: Biogeosciences* 117(G2): G02008.
- Li J**, DD. Richter. 2012. Effects of two-century land use changes on soil iron crystallinity and accumulation in Southeastern Piedmont region, USA, *Geoderma* 173-174: 184-191.
- Li J**, DD Richter, A Mendoza, PR Heine. 2010. Effects of land-use history on soil spatial heterogeneity of macro- and trace elements in the Southern Piedmont USA, *Geoderma* 156: 60-73. (
- Li J**, DD Richter, A Mendoza, PR Heine. 2008. Four-decade responses of soil trace elements to an aggrading old-field forest: B, Mn, Zn, Cu and Fe. *Ecology* 89(10): 2911-2923.

*Other co-author publications (23)*

- Kieffer C, Kaur N, **Li J**, Matamala R, Fay P, and Hui D. Photosynthetic responses of switchgrass to light and CO<sub>2</sub> under different precipitation treatments. *Global Change Biology Bioenergy*. In Press.
- Kieffer C, Hui D, Matamala R, **Li J**, Tyler D, and E Dzantor. 2023. Evaluation of

- eastern gamagrass as dual-purpose complementary bioenergy and forage feedstock to switchgrass. *Global Change Biology Bioenergy*, 15, 776–790.
- Dhakal K, Parajuli M, Jian S, **Li J**, and Nandwani D (2022). Responses of soil heterotrophic respiration and microbial biomass to organic and conventional production systems. *Front. Soil Sci.* 2:999139. doi: 10.3389/fsoil.2022.999139
- Jia S, X Liu, W Lin, Y Zheng, **J Li**, D Hui and J Guo. 2021. Decreased glomalin-related soil protein with nitrogen deposition in a 3-year-old *Cunninghamia lanceolata* plantation. *Journal of Soils and Sediments* 22(3): 931–941.
- Weiling Dong, Alin Song, Huaqun Yin, Xueduan Liu, **Jianwei Li**, Fenliang Fan. 2021. Decomposition of microbial necromass is divergent at the individual taxonomic level in soil. *Front. Microbiol.* 12: 679793. doi:10.3389/fmicb.2021.679793
- Chun-Lan GUO, Xiang-Min Fang, Song-Ze Wang, **Jianwei Li** & Fu-Sheng Chen\*. 2021. Navel Orange Fine Root Nutrient Content and Rhizosphere Effects Varied with Tree Ages and Soil Depths in a Hilly Red Soil Region of China, *Acta Agriculturae Scandinavica*, Section B — Soil & Plant Science, 71(8): 696–705.
- Nazia, R., F. Liang, S. Huang, B. Wang, M. Xu, **J. Li**, H. Gao, and W. Zhang. 2019. Long-Term Fertilization Altered Labile Soil Organic Carbon Fractions in Upland Soils of China. *Journal of Animal and Plant Sciences* 29:1383–1389.
- Hui D, CL Yu, Q Deng, S Jian, **J Li**, DE. Dzantor. 2019. Effects of fly ash application on plant biomass and element accumulations in a meta-analysis. *Environmental Pollution* 250:137–142.
- Chen, S., Y. Lu, P. Dash, P. Das, **J. Li**, K. Capps, H. Majidzadeh, and M. Elliott. 2019. Hurricane pulses: Small watershed exports of dissolved nutrients and organic matter during large storms in the Southeastern USA. *Science of the Total Environment* 689:232–244
- Xia J, Niu S, Ciais P, Janssens I, Chen J, Ammann C, Arain A, Blanken PD, Cescatti A, Bonal D, Buchmann N, Curtis PS, Chen S, Dong J, Flanagan LB, Frankenberg C, Georgiadis T, Gough CM, Hui D, Kiely G, **Li J**, Lund M, Magliulo V, Marcolla B, Merbold L, Montagnani L, Moors E, Olesen JE, Piao S, Raschi A, Rouspard O, Suyker AE, Urbaniak M, Vaccari FP, Varlagin A, Vesala T, Wilkinson M, Weng E, Wohlfahrt G, Yan L, Luo Y. 2015. Joint control of terrestrial gross primary productivity by plant phenology and physiology. *Proceedings of the National Academy of Sciences* 112(9): 2788–2793.
- Si HW, C Lai, T LeRoith, D Liu, L Parnell, J Ordovas, **J Li**, H Si, Y Long, L Zhang, X Wang, T Ansum. 2018. Dietary epicatechin improves survival and delays skeletal muscle degeneration in aged mice. *Federation of American Societies for Experimental Biology (FASEB)*. The FASEB Journal 0:fj.201800554RR.
- Smith G, A Reginald, D Nandwani, **J Li**. 2017. Impacts on urbanization: diversity and the symbiotic relationships of rural, urban, and spaces in-between. *International Journal of Sustainable Development & World Ecology (TSDW)* 25(3): 276–289.
- He YT, MG Xu, Y Qi, Y Dong, X He, **J Li**, X Liu, L Sun. 2017. Differential responses of soil microbial community to four-decade long grazing and cultivation in a semi-arid grassland. *Sustainability* 9(1): 128.
- Hu N, H Li, Z Tang, Z Li, J Tian, Y Lou, **J Li**, G Li, X Hu. 2016. Community diversity, structure and carbon footprint of nematode food web following reforestation on degraded Karst soil. *Scientific Reports* 6, 28138.
- Zhang WJ, KL Liu, JZ Wang, XF Shao, MG Xu, **J Li**, XJ Wang, D Murphy. Relative contribution of maize and external manure amendment to soil carbon sequestration in

- a long-term intensive maize cropping system. 2015. *Scientific Reports* 5, 10791
- Niu SL YQ Luo, MC Dietze, T Keenan, Z Shi, **J Li**, FS Chapin III. 2014. The role of data assimilation in predictive ecology. *Ecosphere* 5(5): art65.
- Zhang XB, LH Wu, N Sun, XS Ding, **J Li**, BR Wang DC Li. 2014. Soil CO<sub>2</sub> and N<sub>2</sub>O emissions in Maize growing season under different fertilizer regimes in an upland red soil region of South China. *Journal of Integrative Agriculture*. 13(3):604-614.
- Niu SL, YQ Luo, DJ Li, SH Cao, JY Xia, **J Li**, M Smith. 2014. Plant growth and mortality under climatic extremes: an overview. *Environmental and Experimental Botany* 98(0): 13-19.
- Meng HQ, MG Xu, JL LV, XH He, **J Li**, XJ Shi, C Peng, BR Wang, HM Zhang. 2013. . Soil pH dynamics and nitrogen transformations under long-term chemical fertilization in four typical Chinese croplands. *Journal of Integrative Agriculture* 12(11):2092-2102
- DJ Li, C Schädel, ML Haddix, EA. Paul, R Conant, **J Li**, JZ Zhou, YQ Luo, 2013. Differential responses of soil organic carbon fractions to warming: results from an analysis with data assimilation, *Soil Biology and Biochemistry* 67(0): 24-30.
- Ziegler, S. E., S. A. Billings, CS. Lane, **J Li**, ML. Fogel. 2013. Warming alters routing of labile and slower-turnover carbon through distinct microbial groups in boreal forest organic soils." *Soil Biology and Biochemistry* 60(0): 23-32.
- Zhang ZM, X Yu, S Qian, **J Li**. 2009. Spatial variability of soil nitrogen and phosphorus of a mixed forest ecosystem in Beijing, China. *Environmental Earth Sciences* 60(8): 1783-1792.
- Richter DD, HL Allen, **J Li**, D Markewitz, and J Raikes. 2006. Bioavailability of slowly cycling soil phosphorus: major restructuring of soil P fractions over four decades in an aggrading forest. *Oecologia* 150(2): 259-271.
- Book chapter (1)*
- Richter DD, Bacon AR, Billings SA, Binkley DB, Callahan, MA, Curry AE, Fimmen RL, Grandy AS, Heine PR, Hofmockel M, Jackson JA, Lemaster E, **Li, J**, Markewitz D, Mobley ML, Morrison MW, Strickland MS, Waldrop T, and Wells CG. 2014. Evolution of a half-century of soil and ecosystem research at the Calhoun Experimental Forest, in Research for the Long-Term: The interplay of societal need and research on USDA Forest Service Experimental Forests and Ranges. D.C. Hayes, S. Stout, A. Hoover, and R. Crawford (eds). Springer Verlag, NY.

*Non-peer reviewed publications (1)*

- Li J**. Suggestions to optimize the agricultural nutrient management in China. 2009. SINO-ECO Newsletter 22 (2) 8. [http://www.sino-eco.org/pdf/Sino-eco\\_Newsletter\\_December\\_2009.pdf](http://www.sino-eco.org/pdf/Sino-eco_Newsletter_December_2009.pdf)

**IN THE NEWS**

- 08/25/2022. Interview by **WKRN-TV**  
([https://www.wkrn.com/news/local-news/nashville/climate-experts-make-proposal-for-weather-sensors-in-nashville?utm\\_source=wkrn\\_app&utm\\_medium=social&utm\\_content=share-link](https://www.wkrn.com/news/local-news/nashville/climate-experts-make-proposal-for-weather-sensors-in-nashville?utm_source=wkrn_app&utm_medium=social&utm_content=share-link))
- 07/17/2019. Appeared in **Farm World**  
(<http://www.farmworldonline.com/News/NewsArticle.asp?newsid=24332>)
- 06/13/2019. Appeared in The **Tennessee Star**  
(<https://tennesseestar.com/2019/06/13/tennessee-state-university-gets-1-million-in-taxpayer-money-to-study-climate-change/>)

06/11/2019. Appeared in the *Associated Press (AP)*

(<https://www.apnews.com/2b7de613003d419da0378d8fe70f1194>)

06/06/2019. Featured in the *Tennessee State University Newsroom*

(<http://tnstatenewsroom.com/archives/tag/dr-jianwei-li>)

03/01/2019. Lab work was reported in the *College of Agriculture* Newsletter Spring Issue with group photo included.

09/27/2017. "Climate change impact on your plate" reported in *Vanderbilt Political Review* (<http://vanderbiltpoliticalreview.com/climate-changes-impact-on-your-plate/>).

## **TEACHING**

*Doctoral Seminar in Agricultural Sciences I/II* Spring 2024, TSU graduate course

*Climate Change* Fall 2022, 2021, Spring 2019, TSU undergraduate and graduate course

*Environmental Issues & Sustainability* Guest lecture, Fall 2022

*Environmental Issues & Sustainability* Fall 2020, 2018, 2017, 2016, TSU graduate course

*Fundamentals of Environmental Sciences II* Spring 2020, 2018, TSU undergraduate course

*Fundamentals of Environmental Sciences I* Fall 2015, TSU undergraduate course

*Research Methods* Guest panelist, Fall 2022, 2020 TSU graduate course

*Climate Change and the Global Response* Guest lecture, Fall 2019, Vanderbilt University

*Sustainable Crop Production* Guest lecture, Fall 2019, TSU

*Fundamentals of Environmental Sciences I* Guest lecture, Fall 2019, Spring 2019, TSU

*Ecosystem Science and Management* Guest lecture, Fall 2018, 2017, 2016, TSU

*Landscape Plants and Designs* Guest lecture, Fall 2017, 2016, TSU

*Data Analysis in Soil Science* Guest lecture, 2015, 2014, TSU

*Applied Regression Analysis* Teaching Assistant, Duke University graduate course

*Soil Resources* Teaching Assistant, Duke University graduate course

*Fire Ecology and Management* Teaching Assistant, Duke University graduate course

## **POST-DOCS, GRADUATE AND UNDERGRADUATE STUDENTS, VISITING SCIENTISTS**

### *Research Associate*

*Wei Dai*, Postdoctoral Researcher, 2022-2023

*Lahiru Gamage*, Postdoctoral Researcher, 2019-present

### *Graduate student Advisee*

*Matthew Manu*, PhD aspirant, 2024- (Chaired)

*Aviyan Pandey*, M.S. student, 2024- (Chaired)

*Dakennya Goines*, M.S. student, 2023, (Climate Leadership Academy Fellow)

*Christina Kieffer*, Ph.D. student, 2020-2023 (completed, co-advised)

*Christina Kieffer*, M.S. student, 2022-2023 (completed, Chaired)

*Alford Jonathan*, M.S. aspirant, 2022-present (Chaired)

*Navneet FNU*, M.S. aspirant, 2021-present (co-advised)

*Xuehan Wang*, M.S. aspirant, 2021-present (Chaired)

*Precious Fego Areeveso*, M.S. aspirant, 2020-present (Chaired)

*Siyang Jian*, PhD aspirant, 2016-2020 (completed, Chaired)

*Madhav Parajuli*, M.S. aspirant, 2018-2020 (completed, Chaired)

*Siyang Jian*, MS, 2014-2016 (completed, Chaired)

*Keshab Subedi*, PhD student, 2016-2017 (not completed, Chaired)  
*Sherly Celada*, PhD student, 2015-2016 (not completed, Chaired)  
*Demetrius Sudduth*, MS student, 2014-2015 (not completed, Chaired)  
*Christina Kieffer*, PhD student, 2020-present (co-advised)  
*Adrian Harris*, MS student, 2019-present (completed, co-advised)  
*Axel Gonzalez*, MS student, 2019-2021 (completed, co-advised)  
*Vybhav Gopisetty*, MS, 2016-2018 (completed, co-advised)  
*Dayo Adeleke*, PhD aspirant, 2015-2020 (completed, co-advised)  
*Brian Wong*, MS student, 2015-2016 (not completed, co-advised)

*Undergraduate student advisee*

*Shemicka Holt*, undergraduate student, 2023, (Climate Leadership Academy Fellow)  
*Browen Swann*, undergraduate research assistant, 2022-2024  
*Kylan Clark*, undergraduate research assistant, 2022-2023  
*Naomi Von Bose*, undergraduate research assistant, 2022-2023  
*Jaila Winford*, undergraduate research assistant, 2020-2021  
*Christian Smith*, undergraduate research assistant, 2020-2021  
*Soroush Moghaddam*, undergraduate research assistant, 2019-2020  
*Jahnari Edwards*, undergraduate research assistant, 2019-2020  
*Dilovan Yahya*, undergraduate research assistant, 2019-2020  
*Maggie Syversen*, undergraduate research assistant, 2018-2019  
*Tariq Mohammad*, undergraduate research assistant, 2016-2017

*Visiting Scholar*

*Mr. Jiacong Zhou*, 2021-2022  
*Mrs. Min Yuan*, 2019-2020  
*Dr. Jianjun Duan*, 2018-2019  
*Dr. Chunlan Guo*, 2016-2017  
*Mr. Weijing Cheng*, 2015-2016

## **MEMBERSHIPS**

American Geophysical Union  
Ecological Society of America  
Soil Science Society of America

## **SYNERGISTIC ACTIVITIES**

Editorial service

- Editorial Board Member, *Journal of Integrative Agriculture*, 2022-present
- Editorial Board Member, *Applied Soil Ecology*, 2021-present
- Associate Editor, *Journal of Plant Nutrition and Soil Science*, 2020-present
- Editorial Board Member, *Scientific Reports*, 2015-present

Panelist and working group

- National Climate Change Working Group, *USDA-NIFA*, 06/2023
- Invited panel presenter, Virtual Writing Workshop, Research and Sponsored Program Tennessee State University 05/2020
- Review panel member for *DOE, USDA, NSF* and *EPA*, 2015~2022

- Advisory member for the National Ecological Observatory Network (*NEON*) Terrestrial Biogeochemistry and Ecological Forecasting TWG 2018, 2021, 2022

Review and Judge

- Ad hoc reviewer for > 35 journals including Nature Communications, Global Change Biology, Biogeochemistry, Soil Biology and Biochemistry, Fungal Ecology
- Judge for 4-H Public Speaking Contest at Tennessee State University 10/2020
- Volunteer to Judge the Virtual Poster Showcase, American Geophysical Union Annual Meeting 2018, 2019
- Volunteer to Judge the Poster and Oral presentations at the Research Symposium Tennessee State University 2017, 2018, 2019

Committee

- Outstanding Mentor Award Committee, Student Scholarship Committee in College of Agriculture at Tennessee State University 2019-2021
- Departmental Seminar Committee, Agricultural and Environmental Sciences, Tennessee State University 2016, 2017, 2018
- Faculty search committee chair or member for Assistant/Associate professor in GIS/RS, Irrigation Engineering, Soil Microbiology, and Farm manager position Tennessee State University 2015, 2016, 2018, 2019

Societal service

- Event supervisor, TSU Science Olympiad Tournament, February 2024.
- Speaking and demonstrating to >200 high school students in one year during local school visits at TSU 2019-2020
- Speaking and demonstrating to state policy makers and lawmakers at TSU day in State Capital Hall Nashville TN 03/2017 and 03/2018
- Participant and presenter at the Small Farm Expo and Small Farmer Recognition Program at Tennessee State University 2016, 2019, 2020, 2021
- Selected TSU faculty presenter during the visit of Dr. Arlene Garrison of Oak Ridge Associated Universities (ORAU) 08/2015
- Primary organizer of Organized Oral Session in 100<sup>th</sup> ESA annual meeting, Maryland USA 08/2015

## **PRESENTATIONS**

*Invited talks*

10. 2022. Invited seminar speaker, Department of Biology, Tennessee State University
07. 2022. Invited speaker, Rothamsted Research, United Kingdom
07. 2022. Invited speaker, University of Landau, Germany
08. 2021. Invited seminar speaker, Climate Change Science Institute, Environmental Science Division, Oak Ridge National Laboratory
05. 2021. Panel Presenter, Virtual Tennessee Climate Data Summit (Invited University/Research Section Presenter and Representative of TSU)
05. 2020. Panel Presenter, Virtual Writing Workshop, Research and Sponsored Program Tennessee State University (Invited Panel and Lecture)
10. 2019. Department of Environment and Civil Engineering, Vanderbilt University (Invited Guest Lecture)
10. 2019. Department of Biological Science, College of Life and Physical Sciences,

- Tennessee State University (Departmental seminar)
06. 2018. Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China.
07. 2017. Applied Institute of Ecology, Chinese Academy of Sciences, Shenyang, Jilin, China.
09. 2016. Department of Geological Science, University of Alabama, Tuscaloosa, AL
10. 2015. Department of Food and Consumer Science, Tennessee State University, Nashville, TN
- 03, 2014. Dept. Agricultural and Environmental Sciences, Tennessee State University, Nashville, TN
05. 2013. College of Agricultural Resources and Environment, China Agriculture University, Beijing
05. 2012. Institute of Regional Planning and Agricultural Resources, Chinese Academy of Agriculture Sciences, Beijing
04. 2012. Department of Microbiology and Plant Biology, University of Oklahoma, Norman OK
03. 2011. School of Natural Resources, University of Nebraska-Lincoln, NE
10. 2011. International Workshop on Global Soil Biogeochemical Changes, Duke University, Durham, NC
03. 2009. Departmental Seminar of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS
- Contributed talks (\* indicate students or post-docs working under my supervision)*
08. 2024. Kasrija L, Ray A, Ren W, Wang Li, Fay P, Smith D, **Li J**, Illukpitiya, Tian H, and Hui D. Ecological Society of America Annual Meeting, Long Beach, California.
04. 2024. **Li J.** et al., Association of 1890 Research Directors (ARD) Research Symposium, TSU, Nashville TN.
04. 2024. **Gamage L.** et al., Association of 1890 Research Directors (ARD) Research Symposium, TSU, Nashville TN.
04. 2024. **Wang X.** et al., Association of 1890 Research Directors (ARD) Research Symposium, TSU, Nashville TN.
04. 2024. **Alford J.** et al., Association of 1890 Research Directors (ARD) Research Symposium, TSU, Nashville TN.
01. 2024. **Li J.** Environmental Sciences Departmental Seminar, TSU, Nashville TN
03. 2023. **Li J.** University-wide Research Symposium, TSU, Nashville TN
03. 2023. **Li J.** Department of Agri. and Env. Science Seminar, TSU, Nashville TN
12. 2022. **Li J.** American Geophysical Union Annual Meeting, Chicago, IA
12. 2022. **Wang X.** American Geophysical Union Annual Meeting, Chicago, IA
12. 2022. **Gamage L.** American Geophysical Union Annual Meeting, Chicago, IA
08. 2022. Kieffer Christina, **Li J.** and Hui D. Ecological Society of America Annual Meeting, Montreal, Canada
04. 2022. L Gamage\*, X Wang\*, and **Li J.** Association of 1890 Research Directors (ARD) Research Symposium 2022. Atlanta, GA.
12. 2021. **Li J.** American Geophysical Union Annual Meeting, New Orleans, LA.
12. 2021. X Wang\*, **Li J.** American Geophysical Union Annual Meeting, New Orleans, LA.
12. 2021. P Areeveso \*, **Li J.** American Geophysical Union Annual Meeting, New Orleans, LA.

09. 2021. L Gamage\*, **Li J.** Small Farm Expo Workshop, Tennessee State University, Nashville, TN
03. 2020. M Yuan\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2020. L Gamage\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2020. M Parajuli\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2020. S Moghaddam\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2020. A Gonzalez, K Adesso, J Oliver, A Witcher, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2017. Guo CL\*, **Li J.** Dept. Agricultural and Environmental Sciences Seminar, Tennessee State University, Nashville, TN
12. 2016. Jian S\*, **Li J.** American Geophysical Union Annual Meeting, San Francisco, CA.
03. 2016. Jian S\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
04. 2016. Celada S\*, **Li J.** University-wide Research Symposium, Tennessee State University, Nashville, TN
03. 2016. **Li J.** Departmental Seminar, Department of Agricultural and Environmental Sciences, TSU
12. 2014. Allison SD, **J Li**, YQ Luo, MA Mayes, GS Wang. American Geophysical Union Annual Meeting, San Francisco, CA.
08. 2013. **Li J**, Y Luo, S Natali, TE Schuur, J Xia, B Pack, YP Wang. 98th Ecological Society of America Annual Meeting, Minneapolis, MN
08. 2013. JY Xia, YQ Luo, SL Niu, DF Hui, J Dong, E Weng, J Yuan, **J Li** et al 98th Ecological Society of America Annual Meeting, Minneapolis, MN
12. 2012. Ziegler SE, SA Billings, CL Lane, **J Li**, ML. Fogel. American Geophysical Union, San Francisco, CA
08. 2011. Billings SA, **J Li**, SE Ziegler. Ecological Society of America, Austin, Texas
12. 2011. **Li J**, SE Ziegler, CL Lane, SA Billings. American Geophysical Union, San Francisco, CA
12. 2010. **Li J**, SE Ziegler, CL Lane, SA Billings. American Geophysical Union, San Francisco, CA
12. 2009. Billings SA, SE Ziegler, **J Li**. American Geophysical Union, San Francisco, CA
07. 2007. **Li J**, DD Richter, A Mendoza, P Heine. International Conference on the Biogeochemistry of Trace Elements (9th ICOBTE), Beijing

*Posters*

12. 2019. Li J. Jian S\*. American Geophysical Union Annual Meeting. San Francisco, CA.
12. 2019. Jian S\*, Li J. American Geophysical Union Annual Meeting. San Francisco, CA.
12. 2018. **Li J**. Jian S\*. American Geophysical Union Annual Meeting. Washington DC.
12. 2017. Jian S\*, **Li J**. American Geophysical Union Annual Meeting. New Orleans, LA.
05. 2013. **Li J**, YQ Luo, S Natali, TE Schuur, J Xia, B Pack, YP Wang. North American

- Carbon Program (NACP), New Mexico
12. 2012. **Li J**, S Natali, TE Schuur, J Xia, B Pack, YP Wang, YQ Luo. American Geophysical Union Fall Meeting. San Francisco, CA
  10. 2012. **Li J**. S Natali, TE Schuur, YQ Luo. Promoting New Perspectives on Data Assimilation in Global Change Science workshop. Woods Hole, MA
  10. 2012. Billings SA, SE Ziegler, F Ballantyne IV, C Lehmeier, **J Li**, and C Lane. 5th International Workshop on Soil and Sedimentary Organic Matter Stabilization and Destabilization (SOM-5), Ascona, Switzerland
  05. 2011. **Li J**, SA Billings, SE Ziegler. Enzymes in the Environment Conference, Bad Nauheim, Germany
  09. 2011. Ziegler SE, SA Billings, CL Lane, **J Li**. Humber River Basin Project (HRBP) workshop, Newfoundland, Canada
  09. 2011. Billings SA, **J Li**, SE Ziegler, CL Lane. Humber River Basin Project (HRBP) workshop, Newfoundland, Canada
  08. 2010. **Li J**, SE Ziegler, CL Lane, SA Billings. Ecological Society of America, Pittsburgh, PA
  09. 2010. Ziegler SE, SA Billings, **J Li**, CL Lane. Humber River Basin Project (HRBP) workshop, Newfoundland, Canada
  09. 2010. **Li J**, SA Billings, SE Ziegler. Humber River Basin Project (HRBP) workshop, Newfoundland, Canada
  08. 2009. **Li J**, DD Richter, A Mendoza, P Heine. Ecological Society of America, Milwaukee, WI, USA
  05. 2007. **Li J**, DD Richter, A Mendoza, P Heine. Global Soil Changes Workshop, Durham, NC, USA
  10. 2007. Richter DD, Julie DeMeester, **Li J**, J Jackson. Soil Science Society of America, New Orleans, LA, USA
  07. 2006. **Li J**, DD Richter, A Mendoza, P Heine. World Congress of Soil Science, Philadelphia, PA, USA
  10. 2005. **Li J**, DD Richter, A Mendoza, P Heine. Soil Science Society of America, Salt Lake City, UT, USA
  10. 2005. **Li J**, DD Richter, A Mendoza, P Heine. Critical Zone Workshop, Newark, DE, USA