

Yuguo Yang

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Education

University of Nebraska-Lincoln (UNL)	Aug.2018-Present
PhD Candidate, Ecology, Evolution and Behavior Specialization (Advisor: Sabrina E. Russo)	
Dissertation: Interactions between plants and belowground microbiota: Implications for plant diversity and productivity (degree expected August 2023)	
Beijing Forestry University	Jul.2018
M.S., Soil Science (Advisor: Yuqing Geng)	
Thesis: Influence of understory ground cover types on soil microbial communities and enzyme activities	
Michigan State University	May.2015
B.S., Crop and Soil Sciences, Turfgrass management—joint program with Beijing Forestry University	
Beijing Forestry University	Jul.2015
B.S., Turfgrass Management, Turfgrass Management—joint program with Michigan State University	

Peer-reviewed Publications

1. **Yuguo Yang**, Sabrina E. Russo. (In prep) Trade-offs on three levels of rooting strategies along edaphic gradient in grassland ecosystem.
2. **Yuguo Yang**, Glenn Ledder, Sabrina E. Russo. (In review) Costs and benefits of mycorrhizal symbiosis in a plant resource allocation framework. *New Phytologist*.
3. Lin Yu, Guobing Lan, **Yuguo Yang**, Yafei Tang, Zhenggang Li, Xiaoman She, Zifu He. (2021) First report of anthracnose caused by *Colletotrichum fructicola* on *Brassica parachinensis* in China. *Crop Protection* 154:105842 doi/10.1016/j.cropro.2021.105842.
4. **Yuguo Yang**¹, Ying Yang¹, Yuqing Geng, Guilin Huang, Xueqing Cui, Meng Hou. (2018) Effects of different land types on soil enzyme activity in the Qinghai Lake region. *Wetlands* doi:10.1007/s13157-018-1014-9.
5. **Yuguo Yang**, Yuqing Geng, Hongjuan Zhou, Guangliang Zhao, Ling Wang. (2017) Effects of gaps in the forest canopy on soil microbial communities and enzyme activity in a Chinese pine forest. *Pedobiologia* 61:51–60

Honors & Awards

Sigma XI Grants in Aid of Research (\$1000)	2023
UNL: Graduate student travel award (\$500)	2022
UNL: Dr. John F. Davidson prize for work in Botany or Plant Systems (\$1500)	2022
UNL: Dr. John F. Davidson Memorial Fund (\$1000, \$1998, \$1995)	2020, 2021, 2022
UNL: Jessie A. Lee Fund (\$1850)	2019
China Graduate Student National Scholarship (\$3000)	2017
1 st tier Graduate Scholarship (\$1200/y)	2016 & 2017
2 nd tier Scholarship (\$200/y)	2013 & 2014

Professional experience

Graduate Teaching Assistant, University of Nebraska-Lincoln	2019, 2021-Present
Life121 lab, Fundamentals of Biology II.	
Graduate Research Assistant, University of Nebraska-Lincoln	2018-2019, 2020-2021
Diversity-productivity relations of plants with belowground microbiota in grassland ecosystems.	
Graduate Research Fellow, Beijing Forestry University	2015-2018
Soil microbial biomass and enzyme activities in arboreal forests and plateau wetlands.	

Contributed to acquired patent on soil water content measurement (ZL201620274906.7).	
Undergraduate Research Intern, Texas A&M University (Dr. Young-Ki Jo)	2014
Soil nematode isolation & counting. Soil microbial DNA extraction.	
Undergraduate Research Assistant, Beijing Forestry University (Dr. Yuqing Geng)	2013-2014
Soil enzyme assay. Soil arthropods isolation.	

Research talk & Poster presentation

British Ecological Society (BES) Annual Conference Oral presentation	2022
“Diversity relations of plants with belowground microbiota in a North American grassland: mechanisms and consequences for plant productivity”	
UNL Plant Science Retreat Poster presentation	2022
“Plant and belowground microbial relations along an edaphic gradient in Nebraska sandhills”	
The Ecological Society of America (ESA) and the Canadian Society of Ecology and Evolution (CSEE) joint Annual Conference Poster presentation	2022
“Covariation of plant and belowground microbial communities along an edaphic gradient in Nebraska sandhills”	
American Society of Plant Sciences Annual Conference Virtual poster presentation	2021
“Trade-offs in rooting strategies along a grassland water availability gradient”	
UNL Plant Science Symposium Poster presentation	2021
“Trade-offs in rooting strategies along a water availability gradient in Nebraska sandhills”	
UNL BioGSA Symposium Poster presentation	2021
“Covariation of root traits and community structure in western Nebraska prairies along a water availability Gradient”	
British Ecological Society (BES) Annual Conference Virtual poster presentation	2020
“Covariation of root functional traits and community structure in grasslands along a water availability gradient”	
UNL BioGSA Symposium Poster presentation	2019
“Determinants of arbuscular mycorrhizal colonization among C3 and C4 grasses”	
NSF Site Visit, Center for Root and Rhizobiome Innovation Poster presentation	2019
“Plant-soil feedback of maize affect Agronomic Land Use and Prairie Restoration”	
Nebraska Research & Innovation Conference Poster presentation	2018
“Influence of understory ground cover types on soil microbial communities and enzyme activities”	

Professional Service & Outreach

UNL: First Year Research Experience Project (UBMS)	2021 & 2022
Mentored two first-year undergraduate students from groups underrepresented in STEM on research on mycorrhizal colonization of prairie plants, including oral presentations.	
https://news.unl.edu/newsrooms/today/article/nsf-grant-expands-efforts-to-retain-underrepresented-stem-students/	
UNL: CASNR Undergraduate Scholarship Program (CUSP)	2021
Mentored two undergraduate students from Rwanda on research on plant trait variation, including poster presentations.	
UNL: EPSCoR Young Nebraska Scientist (YNS) at prairie in Nebraska sandhills	2020
Mentored a high school student in research on plant-soil microbe interactions in prairie, including an oral presentation in virtual YNS conference (Featured: 1011 News – Pure Nebraska, Aug/14/2020).	
https://twitter.com/NebraskaEPSCoR/status/1294284243988877319?s=20	
UNL: Fascination of Plants Day	2019
Worked as a volunteer and used interactive demonstrations of root/ninhydrin activity to illustrate how plant	

roots interact with soil microorganisms.

Secretary of Undergraduate Thesis Defense College of Forestry, Beijing Forestry University 2016 & 2017
Coordinated the full process of undergraduate thesis defense and helping with documentation.

Evaluation of Ecological Forest Management in Beijing Mountainous Area (Dr. Yuqing Geng) 2017
Investigated the current status of ecological forest management in mountainous areas through interviews and surveys.

Skills

Software and programming languages: R, Linux, Matlab, Qiime2, IQ-TREE, MrBayes, WinRhizo, Adobe Photoshop, Adobe Illustrator, SPSS, GraphPad Prism, Canoco.

Skills and equipment: Arbuscular mycorrhizal staining and microscopy, soil and plant DNA extraction, analyses of soil properties (soil texture, pH, gravimetric water content, organic matter content, C, N, P, K, Na), soil enzyme colorimetric assay, measurements of plant functional traits, plant species identification based on morphology.

LI600 and LI6400XT portable photosynthetic system, PCR, spectrophotometer, atomic absorption spectrophotometer, atomic fluorescence photometer, flame photometer, multi NC 3100 TOC analyzer, Kjeldahl nitrogen analyzer, continuous flow elemental analysis instrument, microplate reader.