Yuguo Yang

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Education background

University of Nebraska-Lincoln (UNL) Aug.2018-Present
PhD Candidate, Ecology, Evolution and Behavior Specialization (Advisor: Sabrina E. Russo)
Dissertation: Prairie belowground microbiota shaped by aboveground communities and strategies affect plant performance under water limitation

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

Professional experience

Graduate Research Assistant, University of Nebraska-Lincoln 2018-2019, 2020-2021

1) Effect of soil water availability on plant root traits and root associating microbial communities along a natural water gradient in Nebraska sandhills. (Jun.2020-Present)
2) Effects of Nebraska native grass species on rhizosphere microbial communities. (Aug.2018-Present)
3) Investigating soil and rhizosphere microbiome enriched in different maize cultivars using stable isotope probing. (Sep.2018-Aug.2019)

Graduate Teaching Assistant, University of Nebraska-Lincoln 2019, 2021-Present

Life121 lab, Fundamentals of Biology II.

Graduate Research Fellow, Beijing Forestry University 2015-2018

1) Study on the influence of understory ground cover types on soil microbial communities and enzyme activities in Beishan Forest Park, Qinghai Province
2) Forest thinning studies in Badaling Forest Park, Beijing. Study on the effect of gap formation on soil microbes and enzymes.
3) Conduct field plant investigation and soil property analysis across Qinghai province for water conservation purpose. Acquired Patent: A new measuring device of soil saturated water content. Patent #: ZL 201620274906.7. Publication #: 105699120A.

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

Study soil enzyme activities using colorimetric assay.

Peer-reviewed Publications

1. 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.org/10.1016/j.cropro.2021.105842.
2. **Yuguo Yang[1],** Ying Yang[1], 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.

3. **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

Research talk & Poster presentation

The Ecological Society of America (ESA) and the Canadian Society of Ecology and Evolution (CSEE) joint Annual Conference Poster presentation 2022
Title: Covariation of plant and belowground microbial communities along an edaphic gradient in Nebraska sandhills

American Society of Plant Sciences Annual Conference Poster presentation 2021
Title: Trade-offs in rooting strategies along a grassland water availability gradient

UNL Plant Science Symposium Poster presentation 2021
Title: Trade-offs in rooting strategies along a grassland water availability gradient

UNL BioGSA Symposium Poster presentation 2021
Title: Covariation of root traits and community structure in western Nebraska prairies along a water availability gradient

British Ecological Society Annual Conference Poster presentation 2020
Title: Covariation of root functional traits and community structure in grasslands along a water availability gradient

UNL BioGSA Symposium Poster presentation 2019
Title: Determinants of arbuscular mycorrhizal colonization among C3 and C4 grasses

NSF Site Visit, Center for Root and Rhizobiome Innovation Poster presentation 2019
Title: Plant-soil feedback of maize affect Agronomic Land Use and Prairie Restoration

Nebraska Research & Innovation Conference Poster presentation 2018
Title: Influence of understory ground cover types on soil microbial communities and enzyme activities

Honors & Awards

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 ($1998) 2021
UNL: Dr. John F. Davidson Memorial Fund ($1995) 2020
UNL: Jessie A. Lee Fund ($1850) 2019
China Graduate Student National Scholarship ($3000) 2017
1st tier Graduate Scholarship ($1200/y) 2016 & 2017
2nd tier Scholarship ($200/y) 2013 & 2014

Professional services & Outreach

UNL: First Year Research Experience (FYRE) Project 2021 & 2022
Mentored first-year undergraduate students from underrepresented communities on research project

UNL: CASNR Undergraduate Scholarship Program (CUSP) 2021
Mentored undergraduate students from Rwanda on lab experiments and poster presentation

UNL: EPSCoR Young Nebraska Scientist Project at prairie in Nebraska sandhills 2020
Mentored high school research project on plant identification, soil collection, and root scanning.

UNL: Fascination of Plants Public Day 2019
Worked as a volunteer and used interactive demonstrations 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
Coordinating the full process of undergraduate thesis defense and helping the documetation.

Evaluation of Ecological Forest Management in Beijing Mountainous Area (Dr. Yuqing Geng) 2017

Investigating the current status of ecological forest management in mountainous area through interview and questionnaire survey.

Skills

Software and programming languages: R, Matlab, Python, Qiime2, Adobe Photoshop, Adobe Illustrator, SPSS, GraphPad Prism, Canoco, CiteSpace

Equipment and methods: 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