

Kristine Grace Manno Cabugao

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EDUCATION

- University of Tennessee Knoxville** | Bredesen Center for Interdisciplinary Research **08.2014 – 12.2020**
Ph.D. in Energy Science and Engineering, Climate Sciences
Dissertation: Root phosphatase as a vital component of increasing phosphorus availability in tropical forests
- University of California Berkeley** | College of Natural Resources **08.2010 – 12.2013**
B.S. Molecular Environmental Biology, Ecology concentration

RESEARCH EXPERIENCE

- Lawrence Berkeley National Laboratory – Ecology Department | Berkeley, CA** **12.2020 - Present**
Postdoctoral Fellow with Dr. Romy Chakraborty
- Oak Ridge National Laboratory – Climate Change Science Institute | Oak Ridge, TN** **03.2015 – 12.2020**
Graduate Researcher with Dr. Richard J. Norby & David J. Weston
Investigated the influence of plant-microbial interactions on plant phosphorus acquisition to understand rhizosphere mechanisms influencing tropical tree growth
- Smithsonian Tropical Research Institute | Gamboa, Panamá** **05.2017 – 09.2017**
Summer Research Fellow with Dr. Klaus Winter & Dr. Benjamin Turner
Designed and implemented a greenhouse experiment to test a model-driven hypothesis that elevated CO₂ would enhance root and microbial phosphatase activity using tropical tree seedlings grown in ambient or elevated CO₂.

UNDERGRADUATE RESEARCH EXPERIENCE

- University of California Berkeley – Ecosystem Sciences | Berkeley, CA** **06.2011 – 05.2014**
Field and lab student technician with Dr. Whendee Silver
- University of California Berkeley – Ecosystem Sciences | Berkeley, CA** **09.2013 – 12.2013**
Undergraduate intern with Dr. Kate Wilkin & Dr. Scott Stephens
- University of California Berkeley – Ecosystem Sciences | Berkeley, CA** **09.2013 – 12.2013**
Field Technician with Christopher Dow & Dr. Scott Stephens

PUBLICATIONS

- **Cabugao KG**, Timm CM, Carrell AA, Childs J, Lu T-YS, Pelletier DA, Weston DJ and Norby RJ (2017) Root and Rhizosphere Bacterial Phosphatase Activity Varies with Tree Species and Soil Phosphorus Availability in Puerto Rico Tropical Forest. *Front. Plant Sci.*8:1834. doi: 10.3389/fpls.2017.01834
- George, T.S., Giles, C.D., Menezes-Blackburn, D., ... **Cabugao, K.G.**, ... Haygarth, P.M. (2017). Organic phosphorus in the terrestrial environment: a perspective on the state of the art and future priorities. *Plant and Soil*, 1-18. <http://doi.org/10.1007/s11104-017-3391-x>
- **Cabugao KG**, Yaffar D, Stenson N, Childs J, Phillips J, Mayes M, Yang X, Weston DJ, Norby RJ. Bringing function to structure: Root-soil interactions shaping phosphorus availability through a soil profile. **In revision for Ecology and Evolution.**
- Walker AP, De Kauwe MG, Bastos A, ... **Cabugao KG**, ... Whelan M, Ziadema P (2020). Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. *New Phytologist*. 2413-2445. <https://doi.org/10.1111/nph.16866>

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FELLOWSHIPS AND AWARDS

- Smithsonian Tropical Research Institute Summer Fellowship 05.2017
- Bredesen Center for Interdisciplinary Research and Graduate Education Fellowship 04.2014

INVITED PRESENTATIONS

- Root and microbial responses to drought stress in facultative CAM species, *Clusia pratensis* Ecological Society of America Conference | New Orleans, LA 08.2018
- Examining root phosphatase activity in microbial communities of tropical trees under elevated CO₂ Department of Energy Environmental System Science Meeting | Potomac, MD 05.2018
- Linking root traits, microbial communities, and phosphorus availability Ecological Society of America Conference | Portland, OR 08.2017

POSTER PRESENTATIONS, MEETINGS, AND WORKSHOPS

- Association for Tropical Biology and Conservation | Antananarivo, Madagascar 07.2019
- Department of Energy Environmental System Science Meeting | Potomac, MD 04.2019
- Integrating CO₂ Fertilization Evidence Streams and Theory Meeting | Biosphere 2, AZ 11.2018
- Department of Energy Environmental System Science Meeting | Potomac, MD 04.2018
- Next Generation Ecosystem Experiments – Tropics Annual Meeting | Oak Ridge, TN 02.2018
- Next Generation Ecosystem Experiments – Tropics Annual Meeting | Oak Ridge, TN 11.2017
- Organic Phosphorus in the Environment: Solutions for Phosphorus Security | Lake District, UK 11.2016
- Phosphorus Cycling in Terrestrial Ecosystems: Model-data connections | Townsend, TN 05.2016
- Department of Energy Environmental System Science Meeting | Potomac, MD 04.2016
- Women in STEM Research Symposium | Knoxville, TN 03.2016
- Climate Change Science Institute Scientific Advisory Board Meeting | Oak Ridge, TN 03.2016

PROFESSIONAL AND COMMUNITY ENGAGEMENT

- Toastmasters International 07.2020
- Society for Ecological Restoration 05.2020
- Skype a Scientist 11.2019
- Association for Tropical Biology and Conservation 07.2019
- Ecological Society of America 08.2015