

Stephen Andrew Wood

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Professional Appointments

2020–Present	Senior Scientist, Agriculture and Food Systems, The Nature Conservancy
2017–Present	Associate Research Scientist and Lecturer, Yale School of the Environment
2017–2020	Applied Scientist, The Nature Conservancy
2015–2017	NatureNet Postdoctoral Fellow, Yale School of Forestry and Environmental Studies
2007–2009	Sustainable Agriculture Extension Agent, US Peace Corps, Senegal
2006–2007	Staff Research Assistant, The Brookings Institution

Education

2011–2015	PhD, Ecology, Evolution and Environmental Biology, Columbia University
2009–2011	MESc, Environmental Science, Yale School of Forestry and Environmental Studies
2002–2006	BA, Philosophy, The George Washington University

Peer-reviewed Publications

2020 and in press

54. Hess JJ, Ranadive N, Boyer C, Aleksandrowicz L, Anenberg S, Aunan K, Belesova K, Bell M, Bickersteth S, Bowen K, Burden M, Campbell-Lendrum D, Carlton E, Cisse G, Cohen F, Dai H, Dangour A, Dasgupta P, Frumkin H, Gould R, Haines A, Hales S, Hamilton I, Hasegawa T, Hashizume M, Honda Y, Horton D, Karambelas A, Kim H, Kinney P, Kone I, Knowlton K, Lelieveld J, Limay V, Liu Q, Madaniyazi L, Martinez M, Mauzerall D, Milner J, Mossinger J, Neville T, Nieuwenhuijsen M, Pachauri S, Peng G, Perera F, Pineo H, Remais J, Saari R, Sampedro J, Satbyul K, Scheelbeek P, Schwartz J, Shindell D, Shyamsundar P, Taylor T, Tonne C, Van Vuuren D, Wang C, Watts N, West J, Wilkinson P, Wood SA, Woodcock J, Woodward A, Xie Y, Zhang Y, Ebi K (in press) Guidelines for Modeling and Reporting Health Effects of Climate Change Mitigation Actions. *Environmental Health Perspectives*.

53. Marks CO, Yellen B, Wood SA, Martin E, Nislow K (2020) Variation in tree growth along soil formation and microtopographic gradients in floodplains. *Wetlands*. doi:10.1007/s13157-020-01363-9

52. Cook-Patton SC, Leavitt SM, Anderson-Teixeira KJ, Briggs RD, Chazdon RL, Ellis PW, Griscom HP, Harris, NL, Herrmann V, Holl KD, Houghton RA, Larrosa C, Lomax G, Madsen P, Malhi YS, Paquette A, Parker JD, Walker WS, Wheeler CE, Wood SA, Griscom BW (2020) Mapping carbon accumulation potential from global natural forest regrowth. *Nature* 585, 545-550. doi:10.1038/s41586-020-2686-x

51. Fisher J, Wood SA, Bradford MA, Kelsey R (2020) Improving your impact: how to practice science that influences environmental policy and management. *Conservation Science and Practice*. doi:10.1002/csp2.210

50. Bossio DA, Cook-Patton SC, Ellis PW, Fargione J, Sanderman J, Smith P, Wood SA, Zomer RJ, Griscom BW (2020) The role of soils in natural climate solutions. *Nature Sustainability*, doi:10.1038/s41893-020-0491-z.
49. Carey CJ, Gravuer K, Gennet S, Osleger D, Wood SA (2020) Using meta-analysis to understand the effects of rangeland management practices on soil properties and plant-related outcomes in California. *California Agriculture* 74(2): 101-111, doi:10.3733/ca.2020a0015.
48. Gergel S, Powell B, Wood S, Baudron F, Rhemtulla J, Kennedy G, Rasmussen L, Ickowitz A, Smithwick E, Wood SA, Sunderland T (2020) Conceptual linkages between landscape diversity and diet diversity: a roadmap for multi-disciplinary research. *BioScience*, doi:10.1093/biosci/biaa048
47. Oldfield EE, Bradford MA, Wood SA (2020) Direct evidence for threshold effects of soil organic matter on crop growth. *Ecological Applications*, doi:10.1002/eap.2073.

2019

46. Bradford MA, Carey CJ, Atwood L, Bossio D, Fenichel EP, Gennet S, Fargione J, Fisher JRB, Fuller E, Kane DA, Lehmann J, Oldfield EE, Ordway EM, Rudek J, Sanderman J, Wood SA (2019) Soil carbon science for policy and practice. *Nature Sustainability*.
45. Bradford MA, McCulley RL, Crowther TW, Oldfield EE, Wood SA, Fierer N (2019) Cross-biome patterns in soil microbial respiration are predictable from evolutionary theory on thermal adaptation. *Nature Ecology & Evolution* 3: 223-231, doi: 10.1038/s41559-018-0771-4
44. Faye C, Grippa M, Wood S (2019) Use of the Standardized Precipitation and Evapotranspiration Index (SPEI) from 1950 to 2018 to determine drought trends in the Senegalese territory. *Climate Change* 5(20), 327-341
43. Oldfield EE, Bradford MA, Wood SA (2019) Increasing soil organic matter can close global yield gaps. *SOIL* 5: 15-32, doi: 10.5194/soil-2018-21
42. Rasmussen LV, Fagan M, Ickowitz A, Wood SLR, Kennedy G, Powell B, Baudron F, Gergel S, Jung S, Smithwick EAH, Sunderland T, Wood SA, Rhemtulla JM (2019). Forest pattern, not just amount, influences dietary quality in five African countries. *Global Food Security*, doi: 10.1016/j.gfs.2019.100331
41. Shackelford GE, Kelsey R, Sutherland WJ, Kennedy CM, Wood SA, Gennet S, Karp DS, Kremen C, Seavy NE, Jedlicka JA, Gravuer K, Kross SM, Bossio DA, Muñoz-Sáez A, LaHue DG, Garbach K, Ford LD, Felice M, Reynolds MD, Rao DR, Boomer K, LeBuhn G, Dicks LV (2019) Evidence synthesis as the basis for decision analysis: a method of selecting the best agricultural practices for multiple ecosystem services. *Frontiers in Sustainable Food Systems*, doi: 10.3389/fsufs.2019.00083
40. Tallis HT, Kreis K, Olander L, Ringler C, Ameyaw D, Borsuk ME, ..., Wood SA, ... (2019) Aligning evidence generation and use across health, development and environment. *Current Opinion in Environmental Sustainability* 39: 81-93, doi:10.1016/j.cosust.2019.09.004

2018

39. Wood SA, Tirfessa D, Baudron F (2018) Soil organic matter underlies crop nutritional quality and productivity in smallholder agriculture. *Agriculture Ecosystems & Environment* 266: 100-108, doi: 10.1016/j.agee.2018.07.025
38. Wood SA (2018) Nutritional functional trait diversity of crops in south-eastern Senegal. *Journal of Applied Ecology* 55: 81-91, doi:10.1111/1365-2664.13026
37. Wood SA, Smith MR, Fanzo J, Remans R, DeFries RS (2018) Trade and the equitability of global food nutrient distribution. *Nature Sustainability* 1: 34-37, doi: 10.1038/s41893-017-0008-6
36. Wood SA and Bradford MA (2018) Leveraging new understanding of belowground foodwebs for ecological intensification of agriculture, in *Soil Carbon Storage: Modulators, management, and modeling*, ed. Singh, B. Elsevier Publication. ISBN: 978-0-12-812766-7
35. Bogard JR, Marks GC, Wood SA, Thilsted SH (2018) Measuring nutritional quality of agricultural production systems: application to fish production. *Global Food Security* doi:10.1016/j.gfs.2017.09.004
34. Oldfield EE, Wood SA, Bradford MA (2018) Direct effects of soil organic matter on productivity mirror those observed with organic amendments. *Plant and Soil*, doi:10.1007/s11104-017-3513-5

2017

33. Wood SA, Gilbert JA, Leff JW, Fierer N, D'Angelo H, Bateman C, Gedallovich SM, Gillikin CM, Gradoville R, Mansor P, Massmann A, Yang N, Turner BL, Brearly FQ, McGuire KL (2017) Consequences of tropical forest conversion to oil palm on soil bacterial community and network structure. *Soil Biology and Biochemistry* 112: 258-268, doi:10.1016/j.soilbio.2017.05.019
32. Bradford MA, Veen GFC, Bonis A, Bradford EM, Classen AT, Cornelissen JHC, Crowther TW, De Long JR, Kardol P, Manrubia-Freixa M, Freschet GT, Maynard DS, Newman GS, van Logtestijn RSP, Viketoft M, Wardle DA, Wieder WR, Wood SA, van der Putten WH (2017) Fine-scale data do not support the hierarchical model of litter decomposition. *Nature Ecology & Evolution*, doi: 10.1038/s41559-017-0367-4
31. DeFries RS, Fanzo J, Mondahl P, Remans R, Wood SA (2017) Is voluntary certification of tropical agricultural commodities achieving sustainability goals?: A review of the evidence. *Environmental Research Letters* 12: 033001, doi:10.1088/1748-9326/aa625e *ERL Highlight of 2017
30. Diallo MD, Mahamat-Saleh M, Sarr PS, Masse D, Wood SA, Diallo A, Ndiaye O, Diop L, Agbangba EC, Ndao P, Dick RP, Doelsch E, Chotte J-L, Diop A, Guisse A (2017) Effects of major woody species of the Senegalese Great Green Wall on N mineralization and microbial biomass in soils. *Bois et Forêts des Tropiques* 333(3): 43-54
29. Rose KC, Graves RA, Hansen WD, Harvey BJ, Qiu J, Wood SA, Ziter C, Turner MG (2017) Historical foundations and future directions in macrosystems ecology. *Ecology Letters*, doi:10.1111/ele.12717
28. Thompson LR, Sanders J, McDonald D, Amir A, Ladau, J, Locey K, Prill J, Tripathi A, Gibbons S, Ackerman G, Navas-Molina-Navas J, Janssen S, Kopylova E, Vásquez-Baeza Y, González A, Morton J, Mirareb S, Xu Z, Jiang L, Haroon M, Kanbar J, Zhu Q, Song S, Kosciulek T, Bokulich N, Lefler J, Brislawn C, Humphrey G, Owens S, Hampton-Marcell J, Berg-Lyons McKenzie V, Fierer N, Fuhrman J, Clauser A, Stevens R, Shade A, Pollard K, Goodwin K, Jansson J, Gilbert J, Knight R, ..., Wood SA, et. al (as part of Earth Microbiome Project Consortium 300+ authors) (2017) A communal catalogue reveals Earth's multiscale microbial diversity. *Nature* 104: 11436, doi: 10.1038/nature24621

2016

27. Wood SA, Bell C, Bradford MA, Naeem S, Sokol N, Wallenstein MD, Palm CA (2016) Opposing effects of different soil organic matter fractions on crop yields. *Ecological Applications*, 26(7): 272-285, doi:10.1890/16-0024.1
26. Wood SA, McGuire KL, Hickman JE (2016) Microbial ecology under climate change in tropical agroecosystems, in *Climate Change and Microbial Ecology: Current Research and Future Trends*, ed. Marxsen J. Horizon Press
25. Bradford MA, Berg B, Maynard DS, Wieder WR, Wood SA (2016) Understanding the dominant controls on litter decomposition. *Journal of Ecology* 104: 229-238, doi:10.1111/1365-2745.12507
24. DeFries RS, Mondal P, Singh D, Agrawal I, Fanzo J, Remans R, Wood SA (2016) Synergies and trade-offs for sustainable agriculture: Nutritional yields and climate-resilience for cereal crops in Central India. *Global Food Security*, doi:10.1016/j.gfs.2016.07.001
23. Diallo MD, Wood SA, Diallo A, Saleh MM, Ndiaye O, Tine AK, Ngamb T, Guisse M, Seck S, Diop A, Guisse A (2016) Soil suitability for the production of rice, groundnut, and cassava in the peri-urban Niayes zone, Senegal. *Soil & Tillage Research* 155: 412-420, doi:10.1016/j.still.2015.09.009
22. Naeem S, Prager C, Weeks B, Varga A, Flynn DFB, Griffin K, Muscarella R, Palmer M, Wood SA, Schuster W (2016) Biodiversity as a multidimensional construct: a review, framework and case study of herbivory's impact on plant biodiversity. *Proceedings of the Royal Society B*, 20153005, doi:10.1098/rspb.2015.3005

2015

21. Wood SA, Karp DS, DeClerck F, Kremen C, Palm CA, Naeem S (2015) Functional traits in agriculture: agrobiodiversity and ecosystem services. *Trends in Ecology and Evolution* 30: 531-539, doi:10.1016/j.tree.2015.06.013
20. Wood SA, Bradford MA, Gilbert JA, McGuire KL, Palm CA, Tully KL, Zhou J, Naeem S (2015) Agricultural intensification and the functional capacity of soil microbes on smallholder African farms. *Journal of Applied Ecology* 52: 744-752, doi:10.1111/1365-2664.12416

19. Wood SA, Almaraz M, Bradford MA, McGuire KL, Neill C, Naeem S, Palm CA, Tully KL, Zhou J (2015) Farm management, not soil microbial diversity, controls nutrient loss from tropical smallholder agriculture. *Frontiers in Microbiology* 6: 90, doi:10.3389/fmicb.2015.00090
18. Anderman TL, DeFries RS, Wood SA, Remans R, Ahuja R, Ulla SE (2015) Evaluating Nutrition and Time Allocations with Alternative Cook Stoves: Examples of Biogas in Southern India. *Frontiers in Nutrition* 2: 28, doi:10.3389/fnut.2015.00028
17. DeFries RS, Palm CA, Remans R, Fanzo J, Wood SA, Anderman TL (2015) Metrics for land-scarce agriculture. *Science* 349: 238-240, doi:10.1126/science.aaa5766
16. Mulder C, Bennet EM, Bohan DA, Bonkowski M, Carpenter SR, Chalmers R, Cramer W, Durance I, Eisenhauer N, Haughton AJ, Hettelingh J-P, Hines J, Huston MA, Jeppesen E, Krumins JA, Ma A, Mancinelli G, McLaughlin O, Naeem S, Pascual U, Peñuelas J, Pettoirelli N, Pocock MJO, Rafaelli D, Rasmussen JJ, Rusch GM, Scherber C, Setälä H, Vacher C, Voigt W, Vonk JA, Wood SA, Woodward G (2015) 10 years later: networking 35 priorities for science and society after the Millennium Assessment. *Advances in Ecological Research* 53: 1-53, doi:10.1016/bs.aecr.2015.10.005
15. Oldfield EE, Wood SA, Palm CA, Bradford MA (2015) How much SOM is needed for sustainable agriculture? *Frontiers in Ecology and Environment* 13: 527-527, doi:10.1890/1540-9295-13.10.527
14. Tully KL, Wood SA, Almaraz M, Palm CA, Neill C (2015) The effect of the African Green Revolution interventions on yields and nitrogen balances in smallholder maize farms in Western Kenya. *Agriculture, Ecosystems & Environment* 214: 10-20, doi:10.1016/j.agee.2015.08.006

2014

*Authors contributed equally

13. Wood SA and Mendelsohn RO (2014) The impact of climate change on agricultural revenue at the local level: a case study in the Fouta Djallon, West Africa. *Environment and Development Economics* 20: 20-36, doi:10.1017/S1355770X14000084
12. Wood SA, Jina AS, Jain M, Kristjanson P, DeFries RS (2014) Smallholder farmer cropping decisions related to climate variability across multiple regions. *Global Environmental Change* 25: 163-172, doi:10.1016/j.gloenvcha.2013.12.011
11. Bradford MA*, Wood SA*, Bardgett R, Black HIJ, Bonkowski M, Eggers T, Grayston SJ, Kandeler E, Manning P, Setälä H, Jones TH (2014) Discontinuity in the responses of ecosystem processes and multifunctionality to altered soil community composition. *PNAS* 111: 14478-14483, doi:10.1073/pnas.1413707111
10. Remans R*, Wood SA*, Saha N, Anderman TL, DeFries RS (2014) Measuring the nutritional diversity of national food supplies. *Global Food Security* 3: 174-182, doi:10.1016/j.gfs.2014.07.001
9. Anderman TL, Remans R, Wood SA, DeRosa K, DeFries RS (2014) Synergies and tradeoffs between cash crop production and food security: a case study in rural Ghana. *Food Security* 6: 541-544, doi:10.1007/s12571-014-0360-6
8. Bradford MA, Warren RJ, Baldrian P, Crowther T, Maynard DS, Oldfield EE, Weider W, Wood SA, King JR (2014) Climate fails to explain wood decomposition at regional scales. *Nature Climate Change* 4: 625-630, doi:10.1038/nclimate2251
7. Ndiaye O, Diallo A, Wood SA, Guisse A (2014) Structural diversity of woody species in the Senegalese semi-arid Ferlo zone. *American Journal of Plant Science* 5: 416-426, doi:10.4236/ajps.2014.53055
6. Oldfield EE, Felson AJ, Wood SA, Hallett RA, Strickland MS, Bradford MA (2014) Positive effects of afforestation efforts on the health of urban soils. *Forest Ecology & Management* 313: 266-273, doi:10.1016/j.foreco.2013.11.027

2013

5. Wood SA (2013) The Gambia River, in *Biomes and Ecosystems: An Encyclopedia*, ed. Howarth RW. Ipswich, MA: Salem Press, pp: 584-586
4. Tully KL, Lawrence D, Wood SA (2013) Organically managed coffee agroforests have larger soil phosphorus but smaller soil nitrogen pools than conventionally managed agroforests. *Biogeochemistry* 115: 385-397, doi: 10.1007/s10533-013-9842-4
3. Tully KL, Wood SA, Lawrence D (2013) Fertilizer type and species composition affect leachate nutrient concentrations in coffee agroecosystems. *Agroforestry Systems* 87: 1083-1100, doi: 10.1007/s10457-013-9622-0

2012

2. Bradford MA, Wood SA, Maestre FT, Reynolds JF, Warren RJ (2012) Contingency in ecosystem but not plant community response to multiple global change factors. *New Phytologist* 196: 462-471, doi: 10.1111/j.1469-8137.2012.04271.x
1. Covey KR, Wood SA, Warren RJ, Lee X, Bradford MA (2012) Elevated methane concentrations in trees of an upland forest. *Geophysical Research Letters* 39: L15705, doi: 10.1029/2012GL052361

In review

Wood SA, Brennan E (in revision) Impact of cover crops and compost on soil carbon fractions in California organic agriculture. *Biogeochemistry*.

Wood SA, Bowman M (in revision) Soil health under a large-scale, farmer-led experiment of conservation agriculture.

Addicott E, Bradford MA, Pinsky M, Wood SA, Fenichel E (in review) Toward an improved understanding of causation in global change science.

Kane D, Bradford MA, Fuller E, Oldfield EE, Wood SA (in review) Soil organic matter effects on US maize production and crop insurance payouts under drought.

Fierer N, Wood SA, Bueno de Mesquita CP (in review) How microbes can, and cannot, be used to assess soil health.

Media Coverage

"Senegal hopes it has the next quinoa," Quartz Africa, September 2, 2018.

<https://qz.com/africa/1369658/senegal-hopes-it-has-the-next-quinoa/>

International Food Policy Research Institute, News In Brief #37, March 14, 2018

Other Publications

Fanzo J and Wood SA (2018) Our ability to nourish the planet depends on international trade. *Malnutrition Deeply*. March 7, 2018. <https://www.newsdeeply.com/malnutrition/community/2018/03/07/our-ability-to-nourish-the-planet-depends-on-international-trade>

Wood SA (2018) Our ability to feed the planet depends on international trade. *Nature Sustainability Behind the Paper*. February 19, 2018. <https://sustainabilitycommunity.nature.com/channels/1385-behind-the-paper/posts/30462-our-ability-to-feed-the-planet-depends-on-international-trade>

Wood SA (2018) Ecological diversity metrics can teach us how to feed the world well. *The Applied Ecologist's Blog*. January 18, 2018. <https://jappliedecologyblog.wordpress.com/2018/01/18/agroecology-wood>

Tallis H, Kreis K, Olander L, Ringler C et al. (2017) *Bridge Collaborative Practitioner's Guide: Principles and Guidance for Cross-sector Action Planning and Evidence Evaluation*. Washington DC: The Nature Conservancy.

Wood SA (2016) A Dirty Solution to Cleaning the Atmosphere. *Cool Green Science*. June 20, 2016.

<http://blog.nature.org/science/2016/06/20/a-dirty-solution-to-cleaning-the-atmosphere/>

Wood SA (2015) African Green Revolution and the functional capacity of soil microbial communities. *Beneath Our Feet*. June 17, 2015. <http://blog.globalsoilbiodiversity.org/article/2015/06/17/african-green-revolution-and-functional-capacity-soil-microbial-communities>

Wood SA (2012) Farming the Fouta Djallon: The effects of economics and climate on agrobiodiversity and agricultural production in northern Guinea and southern Senegal. *Tropical Resources*.

Wood SA (2011) The Challenge of Maintaining Ecosystem Services. *SAGE Magazine*. December 2, 2011.

Wood SA (2010) Mangi teus-teus: between a Weberian and historical understanding of economic dominance among pious Muslims in francophone West Africa. *Journal of Islamic Marketing*.

Wood SA (2008) Fear of Knowledge. *Philosophy Now* 66: 38-39.

Wood SA (2007) The High School Philosophy Seminar and Philosophical Positivism. *Questions: Journal of Philosophy* 7: 1-11, doi:10.5840/questions200772.

Grants and Fellowships

2019–2021	Understanding how local-scale controls on litter decomposition shape emergent macrosystem biogeochemical patterns, NSF Macrosystems, \$1,400,000 (\$94,617 to co-PI Wood)
2018–2020	Soil health and water funds: innovative solutions for our climate, lands, and waters, China Global Conservation Fund, \$360,000
2018–2019	Quantifying feedbacks between vegetation and ecosystem nutrient cycling in southeastern Senegal, CRDF Global, \$20,000
2018–2019	Building the evidence base for soil carbon sequestration and sustainable grazing in the Northern Rangelands Trust, RJ Kose Family Research Grant, \$10,000
2017–2019	Developing targets to manage soil organic matter for environment and people, Science for Nature and People Partnership, \$198,230
2015–2017	NatureNet Science Fellowship, The Nature Conservancy, \$210,002
2015	Fulbright Fellowship, Senegal, \$25,000
2014	Global Soil Biodiversity Initiative Student Fellowship, \$1,500
2014–2016	Borlaug Food Security Fellowship, USAID Feed the Future, \$40,000
2013	Lewis and Clark Explorers Fellowship, \$5,000
2013	NSF CHANS Fellowship, \$1,000
2012	Leitner Family Fellowship, Columbia University, \$2,500
2010	Tropical Resources Institute Fellowship, Yale School of Forestry and Environmental Studies, \$1,000
2010	Lindsay Fellowship in African Studies, MacMillan Center, Yale University, \$1,000
2010	Agrarian Studies Research Fellowship, Yale University, \$1,000

Invited Workshops and Working Groups

2019–Present	GHG Asset Quantification Working Group, Ecosystem Service Market Consortium
2019–Present	Innovations to build sustainable, equitable, and inclusive food value chains, Atkinson Center for a Sustainable Future, Cornell University
2018–2020	Diverse pathways to nourishment: understanding how agricultural biodiversity enhances food security and nutrition, SESYNC Working Group
2017–2019	Landscape diversity as a driver of dietary diversity, SESYNC Working Group
2019	Food system innovation in the context of climate change, PATH, The Bridge Collaborative, Harvest-Plus, Washington, DC
2019	Climate change mitigation health co-benefits workshop, Wellcome Trust, London
2017–2019	Developing targets to manage soil organic matter for environment and people, SNAPP Working Group (Lead PI)
2017	Sustainable Food and Nutrition Working Group, The Bridge Collaborative, Durham, NC
2015	Science Solution Space Workshop, The Nature Conservancy, Santa Cruz, CA
2015	Nutrition Sensitive Landscapes Methodology Workshop, CGIAR Research Program on Agriculture for Nutrition and Health, Rome
2013	Intensifying Agriculture: Environmental Impacts and Potential Solutions, Brown-MBL Interdisciplinary Workshop, Marine Biological Laboratory, Woods Hole, MA

Organized Sessions

2017	Unearthing identity and making place around extractive industries in West Africa, Association of American Geographers Annual Meeting, Boston, MA
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Invited Seminars and Presentations

2020	Department of Environmental Sciences, Emory University, Atlanta, GA
2020	Department of Environmental Science, American University, Washington, DC
2018	Department of Environmental Studies, University of California Santa Barbara, Santa Barbara, CA
2018	Central United States Science, Stewardship, and Conservation Conference, The Nature Conservancy, Madison, WI
2018	School of Integrative Plant Science, Cornell University, Ithaca, NY
2018	Science for Nature and People Partnership Board Meeting, National Center for Ecological Analysis and Synthesis, University of California Santa Barbara, Santa Barbara, CA
2018	Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL
2017	School of Sustainability, Arizona State University, Tempe, AZ
2017	International Development, Community, and Environment Department, Clark University, Worcester, MA
2016	Department of Geography, University of Alabama, Tuscaloosa, AL
2016	Department of Earth and Planetary Sciences, Johns Hopkins University, Baltimore, MD
2016	College of the Atlantic, Bar Harbor, ME
2016	Global Science Council Meeting, The Nature Conservancy, Seattle, WA
2016	Environmental Studies Program, University of Oregon, Eugene, OR
2015	Department of Ecology, Evolution and Environmental Biology, Columbia University, New York, NY
2014	Eco&Sols, Montpellier, France
2014	Institute of Evolutionary Sciences of Montpellier, Montpellier, France
2014	Bioersity International, Montpellier, France
2012	Millennium Villages Project Colloquium, Columbia University, New York, NY

Contributed Seminars and Presentations

2020	North American Congress for Conservation Biology, Virtual Conference
2019	Association of American Geographers, Washington, DC
2018	Global Science Gathering, The Nature Conservancy, Houston, TX
2018	Association of American Geographers, New Orleans, LA
2017	6th International Symposium on Soil Organic Matter, Rothamsted, UK
2017	Soil Ecological Society, Fort Collins, CO
2017	Institut de Recherche pour le Developement, Dakar, Senegal
2016	A Community on Ecosystem Services, Jacksonville, FL
2016	Association of Tropical Biology and Conservation, Montpellier, France
2015	Association of American Geographers, Chicago, IL
2014	Global Soil Biodiversity Initiative, Dijon, France
2014	Global Land Project, Berlin, Germany
2013	Soil Science Society of America, Tampa, FL
2013	Ecological Society of America, Minneapolis, MN
2005	American Philosophical Association, New York, NY

Professional Development

2020	Project Management for Wildlife Conservation, WildTeam UK
2019	Engaging Across Differences Workshop, The Nature Conservancy
2019	Ecological Forecasting Summer Course, Boston University
2019	Becoming a Powerful Leader, Cornell University
2019	Fundraising and Revenue Generation, Cornell University
2017	Introduction to Bayesian Inference with Stan, StanCon, Columbia University
2012	Agent Based Modeling with NetLogo, Columbia University

Teaching Experience

Course Leader

2016–Present	Foundations of Agriculture and Environment, Yale School of the Environment (4x)
2012	Introduction to biostatistics with R, Université Cheikh Anta Diop

Teaching Assistant

2013	Ecosystem Ecology and Global Change, Columbia University (Instructor: D. Menge)
2013	Tropical Agriculture, Study Abroad Program in Tropical Biology and Sustainability, Columbia University, Princeton University, Mpala Research Centre (Instructor: C. Palm)
2012	Biodiversity, Columbia University (Instructor: D. Melnick)
2010	Economics of the Environment, Yale School of Forestry and Environmental Studies (Instructor: M. Kotchen)

Guest Lectures

2019	Soil Health and Human Health, Yale Climate Change and Health Initiative, Yale School of Public Health
2019	Tropical Forest Landscapes: Conservation, Restoration and Sustainable Use, Environmental Leadership and Training Initiative, Yale School of Forestry and Environmental Studies
2019	Survival Skills for Doctoral Students, Yale School of Forestry and Environmental Studies (Instructors: I. Burke, W. Laurenroth)
2019	Agriculture and the Environment in Developing Countries, The Fletcher School, Tufts University (Instructor: A. Cohn)
2018	Survival Skills for Doctoral Students, Yale School of Forestry and Environmental Studies (Instructors: I. Burke, W. Laurenroth)
2017	Soils and Climate Change, Global Food Systems, Yale School of Forestry and Environmental Studies (Instructor: M. Bomford, G. Geballe)
2016	Climate Change and Nutrition, Frontiers in Public Health, Yale School of Public Health (Instructor: A. Ko)
2013	Biodiversity and Ecosystems, Foundations of Development Practice, School of International and Public Affairs, Columbia University (Instructor: J. Sachs)
2013	Biodiversity and Ecosystem Functioning: an overview, Biodiversity and Ecosystem Processes, Columbia University (Instructor: S. Naeem)

Other

2011	Designed syllabus, Environmental Issues in Africa, Yale School of Forestry and Environmental Studies (Instructor: R. Bailis)
2004–2007	Co-founder, co-director, and discussion leader, The High School Philosophy Seminar at GW, The George Washington University
2005	Writing coach, Social and Political Philosophy, The George Washington University (Instructor: P. Churchill)

Mentorship

Postdoc

2017–2019	Lesley Atwood, National Center for Ecological Analysis and Synthesis
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PhD

2020–Present	Aaron Prairie, Colorado State University, FFAR Fellow Mentorship Program
2017–Present	Chad Papa, Michigan State University
2015–Present	Daniel Kane, Yale School of Forestry and Environmental Studies

Masters

2020	Partners on Prospect Mentoring Program, Yale School of the Environment
2020	Darya Watnick, Yale School of the Environment
2018	Abigail Snyder, Yale School of Forestry and Environmental Studies
2018	Rachel McMonagle, Yale School of Forestry and Environmental Studies
2016–2017	Moussou Cissokho, Université Cheikh Anta Diop

Undergraduate

2014	Carly Wertheim, Barnard College
2013	Tal Lee Anderman, Columbia University
2013	Caitlin Hoerberlein, Columbia University

High School

2016–2018	Catherine Beck, The Spence School
2017	Sophia Sonnenfeldt, Heschel School

Research Assistants

2019	Kyle Monper, University of California, Santa Barbara
2018	Ella Schmidt, Yale School of Forestry and Environmental Studies
2017–2018	Dillon Osleger, University of California, Santa Barbara
2014	Kelsey Markey, Columbia University
2013	Anna Wade, Yale University

Professional Service

Journal Reviewer

Agriculture, Ecosystems and Environment
Biology and Fertility of Soils
BioScience
Climate and Development
Ecological Economics
Ecology
European Journal of Soil Biology
Frontiers in Sustainable Food Systems (Review Editor of Land, Livelihoods and Food Security speciality)
Functional Ecology
Global Biogeochemical Cycles
Global Change Biology
The ISME Journal
Journal of African Economies
Journal of Applied Ecology
Journal of Arid Environments
Land Degradation and Development
The Lancet Planetary Health
Nature Communications

Nature Sustainability
New Phytologist
Plant and Soil
PNAS
Rangeland Ecology and Management
Soil Biology and Biochemistry
Trends in Ecology and Evolution
World Development

Grant Reviewer

2016–Present | Graduate Women in Science Fellowship

Institutional Service

2017–Present | Science Advisory Council, Soil Health Partnership
2017–2019 | Research Action Committee, Soil Health Institute
2017–2018 | The Nature Conservancy, Shared Conservation Agenda Metrics Advisory Groups: Agriculture and food security; Advancing mitigation metrics
2012–2013 | Graduate Student Representative, Department of Ecology, Evolution and Environmental Biology, Columbia University
2010–2014 | Steering Committee Member, Alliance Guinea
2010–2011 | President and Founding Member, Environment in Africa Research Group, Yale School of Forestry and Environmental Studies

Languages

French | Fluent
Fulani | Advanced High (ACTFL 2009)
Bambara | Advanced High (ACTFL 2011)
Wolof | Intermediate

Professional Memberships

Association of American Geographers
Ecological Society of America
Soil Ecology Society