## 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 Articles and Book Chapters

## 2023 and in press

- 74. Ellis PW, Page AM, Wood SA, Fargione J, Masuda YJ, Denney VC, Moore C, Kroeger T, Griscom B, Sanderman J, Atleo T, Cortez R, Leavitt S, Cook-Patton SC (in press) The Tenets and Principles of Natural Climate Solutions. Nature
- 73. Steger C, Kande S, Diop D, Sall M, Mbow C, Sene-Harper A, Tappan G, Wood SA (in press) Local ecological knowledge indicates pathways towards equitable and sustainable management of the Sudano-Guinean savanna. Human Ecology
- 72. Wood SA, Hayhoe K, Bradford MA, Kuebbing SE, Ellis P, Fuller E, Bossio D (2023) Mitigating near-term climate change. Environmental Research Letters, doi:10.1088/1748-9326/acfdbd
- 71. Karan S, Woolf D, Azzi E, Wood SA, Sundberg C (2023) Potential for biochar carbon sequestration from crop residues: a global spatially explicit assessment. Global Change Biology Bioenergy, doi:10.1111/gcbb.13102
- 70. Terasaki Hart DE, Yeo S, Almaraz M, Beillouin D, Cardinael R, Garcia E, Kay S, Lovell ST, Rosenstock TS, Sprenkle-Hyppolite S, Stolle F, Suber M, Thapa B, Wood SA, Cook-Patton SC (2023) Agroforestry as a climate solution: moving from potential to practice. Nature Climate Change, doi:10.1038/s41558-023-01810-5
- 69. Paul BK, Mutegi JK, Wironen MB, Wood SA, Peters M, Nyawira SS, Misiko MT, Dutta SK, Zingore S, Oberthur T, Notenbaert AMO, Cook C (2023) Livestock solutions to regenerate soils and landscapes for sustainable agri-food systems transformation in Africa. Outlook on Agriculture, doi: 10.1177/00307270231179747

68. Bettigole C, Hanle J, Kane DA, Pagliaro Z, Kolodney S, Szuhay S, Chandler M, Hersh E, Wood SA, Basso B, Goodwin DJ, Hardy S, Wolf Z, Covey KR (2023) Optimizing Sampling Strategies for Near-Surface Soil Carbon Inventory: One Size Doesn't Fit All. Soil Systems, doi: 10.3390/soilsystems7010027

#### 2022

- 67. Wood SA and Blankinship JC. (2022) Making soil health science practical: guiding research for agronomic and environmental benefits. Soil Biology and Biochemistry.
- 66. Atwood LW, Racette KA, Diggelmann M, Masala CA, Maund S, Oliver R, Screpanti C, Wironen M, Wood SA (2022) Soil Health: New opportunities to innovate in crop protection research and development. Frontiers in Environmental Science Soil Processes, doi:10.3389/fenvs.2022.821742.
- 65. Addicott E, Bradford MA, Pinsky M, Wood SA, Fenichel E (2022) Toward an improved understanding of causation in global change science. Frontiers in Ecology and Environment, doi:10.1002/fee.2530.
- 64. Jevon FV, Polussa A, Lang AK, Munger JW, Wood SA, Wieder WR, Bradford MA (2022) Patterns and controls of aboveground litter inputs to temperate forests. Biogeochemistry.

### 2021

- 63. Wood SA, Bowman M (2021) Soil health under a large-scale, farmer-led experiment of conservation agriculture. Nature Food 2: 97-103, doi:10.1038/s43016-021-00222-y.
- 62. Herrero M, Thornton PK, Mason-D'Croz D, Palmer J, Bodirsky BL, Pradhan P, Barrett CB, Benton TG, Hall A, Pikaar I, Bogard JR, Bonnett GD, Bryan BA, Campbell BM, Christensen S, Clark M, Fanzo J, Godde CM, Jarvis A, Loboguerrero AM, Mathys A, McIntyre CL, Naylor RL, Nelson R, Obersteiner M, Parodi A, Popp A, Ricketts K, Smith P, Valin H, Vermeulen SJ, Vervoort J, van Wijk M, van Zanten HHE, West PC, Wood SA, Rockstrom J (2021) Articulating the effect of food systems innovation on the Sustainable Development Goals. The Lancet Planetary Health 5(1), doi:10.1016/S2542-5196(20)30277-1 61. Barrett CB, Fanzo J, Herrero M, Mason-D'Croz M, Mathys A, Thornton P, Wood SA, Benton TG, Fan S, Lawson-Lartego
- L, Nelson R, Shen J, Sibanda LM (2021) COVID-19 Pandemic Lessons for Agri-food Systems Innovation. Environmental Research Letters, doi:10.1088/1748-9326/ac25b9
- 60. Bradford MA, Wood SA, Addicott ET, Fenichel EP, Fields N, Gonzalez-Rivero J, Jevon FV, Maynard DS, Oldfield EE, Polussa A, Ward EB, Wieder WR (2021) Quantifying microbial control of soil organic matter dynamics at macrosystem scales. Biogeochemistry, doi:10.1007/s10533-021-00789-5
- 59. Fierer N, Wood SA, Bueno de Mesquita CP (2021) How microbes can, and cannot, be used to assess soil health. Soil Biology and Biochemistry 153, doi:10.1016/j.soilbio.2020.108111.
- 58. Kane D, Bradford MA, Fuller E, Oldfield EE, Wood SA (2021) Soil organic matter effects on US maize production and crop insurance payouts under drought. Environmental Research Letters 16(4), doi:10.1088/1748-9326/abe492.
- 57. Polussa A, Gonzalez-Rivero J, Fields N, Jevon FV, Wood SA, Wieder WR, Bradford MA (2021) Scale dependence in soil microbial functional equivalence and difference. Soil Biology and Biochemistry.

- 56. Barrett CB, Benton TG, Cooper KA, Fanzo J, Gandhi R, Herrero M, James S, Kahn M, Mason-D'Croz D, Mathys A, Nelson RJ, Shen J, Thornton P, Bageant E, Fan S, Mude AG, Sibanda LM, Wood SA (2020) Bundling Innovations to Transform Agri-Food Systems. Nature Sustainability 3(12): 974-976, doi:10.1038/s41893-020-00661-8.
- 55. 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.
- 54. 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.
- 53. 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
- 52. 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
- 51. 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
- 50. Herrero M, Thornton PK, Mason-D'Croz D, Palmer J, Bodirsky BL, Pradhan P, Barrett CB, Benton TG, Hall A, Pikaar I, Bogard JR, Campbell BM, Bryan BA, Chrstensen S, Clark M, Fanzo J, Godde CM, Jarvis A, Loboguerrero M, Mathys A, McIntyre L, Naylor RL, Nelson R, Obersteiner M, Parodi A, Popp A, Ricketts K, Smith P, Valin H, Vermeulen SJ, Vervoort J, van Wijk M, van Zanten H, West PC, Wood SA, Rockstrom J (2020) Articulating the impact of food systems innovation on the Sustainable Development Goals. The Lancet Planetary Health 5(1), doi:10.1016/S2542-5196(20)30277-1
- 49. 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 (2020) Guidelines for Modeling and Reporting Health Effects of Climate Change Mitigation Actions. Environmental Health Perspectives 128(11), doi:10.1289/EHP6745.
- 48. 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
- 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.

- 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

- 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, Kosciolek T, Bokulich N, Lefler J, Brislawn C, Humphrey G, Owens S, Hampton-Marcell J, Berg-Lyons McKenzie V, Fierer N, Fuhrman J, Clauset 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

- 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

- 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, Pettorelli 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 Ecologial 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

- \*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, Setala 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

- 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.

Jung M, et al. (in revision) A global clustering of terrestrial food production systems.

Folbert C, et al. (submitted) Mitigating nitrogen fertilizer use with bundles of management interventions.

Chang CH et al (submitted) A global evidence map of human well-being and biodiversity co-benefits and trade-offs of natural climate solutions.

### **Books**

Barrett CB, Benton T, Fanzo J, Herrero M, Nelson RJ, Bageant E, Buckler E, Cooper K, Culotta I, Fan S, Gandhi R, James S, Kahn M, Lawson-Lartego L, Liu J, Marshall Q, Mason-D'Croz D, Mathys A, Mathys C, Mazariegos-Anastassiou V, Miller A, Misra K, Mude A, Shen J, Sibanda LM, Song C, Steiner R, Thornton P, Wood SA (2022) Socio-Technical Innovation Bundles for Agri-Food Systems Transformation. Palgrave Macmillan, 195 pp. doi:10.1007/978-3-030-88802-2

## **Media Coverage**

Accessible Data for Everyone with AgEvidence, The People of Soil Health Podcast, Episode 16, November 3, 2020

"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

Bossio D., Obersteiner M., Wironen M., Jung M., Wood S., Folberth C., Boucher T., Alleway H., Simons R., Bucien K., Dowell L., Cleary D., Jones R. 2021. Foodscapes: Toward Food System Transition, The Nature Conservancy, International Institute for Applied Systems Analysis, and SYTEMIQ, ISBN: 978-0-578-31122-7

Miralles-Wilhelm F, Iseman T, et al. (2021) Nature-based solutions in agriculture: The case and pathway for adoption. FAO and The Nature Conservancy. http://www.fao.org/documents/card/en/c/cb3141en

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**

2019–2022	Understanding how local-scale controls on litter decomposition shape emergent macrosystem bio-
	geochemical 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**

2020-Present	Technical Working Group, Greenhouse Gas Protocol
2019-Present	GHG Asset Quantification Working Group, Ecosystem Service Market Consortium
2019-2021	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

## **Invited Seminars and Presentations**

2023	MIT Climate and Sustainability Consortium, Cambridge, MA
2022	Department of Horticultural Science, University of Minnesotal
2022	Stockbridge School of Agriculture, University of Massachusetts, Amherst, MA
2021	UN Food Systems Summit Pre-event, International Fertilizer Association
2021	High-Level Political Forum on Sustainable Development, IUCN and French Permanent Mission to the UN
2021	Soil4Food, China Agricultural University
2021	Washington Soil Health Conference, Washington State University
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	Bioversity 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**

2021	One Conservancy Leadership Development Program, Judge Business School, Cambridge University
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
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 Univer-
	sity, 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)
	Total of the control

## **Guest Lectures**

2020	Carbon and Soil Health, Regenerative Farming and Ranching, Washington State University (Instructor: D. Griffin)
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**

2021-2022	Cara Steger, Cornell University
2017-2019	Lesley Atwood, National Center for Ecological Analysis and Synthesis

## PhD

2020-Present	Aaron Prairie, Colorado State University, FFAR Fellow Mentorship Program
2017-Present	Chad Papa, Michigan State University
2015-2022	Daniel Kane, Yale School of Forestry and Environmental Studies

### Masters

Bennett Olupo, Yale School of the Environment	
2024 CJ Miles, Yale School of Public Health	
2023 Alex Cherry, Yale School of the Environment, Yale Jackson School of Global	Affairs
2023 Colin Custer, Yale School of the Environment, Yale School of Management	
2022 Taina Perez, Yale School of the Environment	
2021 Kelly McGlinchey, 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

2023-2024	Mikaele Ymker, Yale College
2014	Carly Wertheim, Barnard College
2013	Tal Lee Anderman, Columbia University
2013	Caitlin Hoeberlein, Columbia University

## **High School**

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

## **Research Assistants**

0010	Kala Managar I Iniversity of California Conta Barbara
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

## **Institutional Service**

2024-Present	Board Member, Hamden Land Trust, Hamden, CT	
2024-Present	Advisory Council, Subject to Climate	
2022-Present	People Champion, Provide Food and Water Team, The Nature Conservancy	
2021-Present	Advisory Board, Academic Network for Revising and Advancing the Assessment of the Soil Microbial	
	Toxicity of Pesticides, European Union	
2021-Present	Advisory Council, AgMission, Foundation for Food and Agriculture Research	
2021-2024	Technical Working Group, Land Sector and Removals Guidance, Greenhouse Gas Protocol	
2017–2021	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	
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	
Fulani	Advanced High (ACTFL 2009)
Bambara	Advanced High (ACTFL 2011)
Wolof	