

Christine D. Sprunger

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Education

Ph.D. in Crop and Soil Sciences Dec. 2015
and Ecology, Evolutionary Biology, and Behavior
Michigan State University

B.S. in Forest Resources, with Honors June 2010
University of Washington

B.A. in Environmental Studies, Minor in Human Rights June 2010
University of Washington

Appointments

Assistant Professor of Soil Science and Rhizosphere Processes Aug. 2018-Present
School of Environment and Natural Resources, The Ohio State University
InFACT Discovery Theme

Post-doctoral Research Scientist Jan - July 2018
School of Environment and Natural Resources, The Ohio State University

NSF Post-doctoral Fellow in Biology 2016-2018
Agriculture and Food Security Center, Columbia University

National Ford Foundation Pre-Doctoral Fellow 2012-2014
Plant, Soil, and Microbial Sciences, Michigan State University

Professional Experience

Hazardous Waste Inspector and Compliance Officer 2008-2010
Supervisor: Jeff KenKnight

U.S. Environmental Protection Agency, Region 10; Seattle, WA

Led hazardous waste inspections and extracted samples for evidence. Prepared penalty calculations for enforcement cases. Wrote inspection reports and enforcement documents. Other responsibilities included producing a strategy report focused on inspection targeting. Served as the Alaska State Coordinator from June 2009-Sept. 2010.

Publications

*denotes Sprunger lab advisee ⁺ denotes student co-author/mentee in collaborative lab

Under Review

*Martin, T. and **C.D., Sprunger**. *Under Review*. Redefining soil food web function in annual row-crop systems: How can nematode communities infer soil health? *Pedobiologia*.

*Martin, T. and **C.D. Sprunger**. *In Revision*. Rhizosphere dynamics influence nitrogen cycling and crop productivity in diversified corn systems. *Frontiers in Sustainable Food Systems*. Invited paper.

Published

Mestelan, S. N. Smeck, **C.D. Sprunger**., A. Dyck⁺, and W. Dick. *In Press*. Four decades of continuously applied tillage/No-tillage on soil morphology and soil properties. *Agrosystems, Geosciences, & Environment*.

Sprunger, C.D., S.W. Culman, L. Deiss, C. Brock, D. Jackson-Smith. *In Press*. Which management practices influence soil health in Midwest organic corn systems? *Agronomy Journal*.

Chaganti, V.N., S.W. Culman, C. Herms, **C.D. Sprunger**, C. Brock, A. Leiva Soto⁺, D. Doohan. *In Press*. Base cation saturation ratios do not impact soil health or grain yields in organic field crops. *Agronomy Journal*.

Culman, S.W., Brock, C., Doohan, D., Jackson-Smith, D., Chaganti, V.N., Herms, C., Kleinhenz, M., **Sprunger, C.D.**, and Spargo, J. *In Press*. Base cation saturation ratios vs. sufficiency level of nutrients: a false dichotomy in practice. *Agronomy Journal*.

*Martin, T. and **C.D. Sprunger**. 2021. A meta-analysis of nematode community composition across soil aggregates: Implications for soil carbon dynamics. *Applied Soil Ecology* 168, 104143. <https://doi.org/10.1016/j.apsoil.2021.104143>.

O'Neill, B.E., **C.D. Sprunger** and G.P. Robertson. 2021. Do soil health tests match farmer experience? Assessing biological, physical, and chemical indicators in the upper Midwest United States. *Soil Science Society of America* 85, 903-918. <https://doi.org/10.1002/saj2.20233>.

- **Featured in CSA News June 2021 Issue**
[doi:10.1002/CSAN.20463](https://doi.org/10.1002/CSAN.20463)

Lin, E., **C.D. Sprunger**, J. Hwang+. 2021. The Farmer's Battlefield: Traditional ecological knowledge and unexploded ordnances in Cambodia. *Agriculture and Human Values*. 10.1007/s10460-021-10195-0.

Sprunger, C.D. T. Martin*, M. Mann*. 2020. Systems with greater perenniality and crop diversity enhance soil biological health. *Agricultural and Environmental Letters*.e20030.

- **Awarded 'Featured Article' for issue**
- **Featured in CSA News March 2021 Issue:**
<https://acsess.onlinelibrary.wiley.com/doi/full/10.1002/csan.20414>.

Sprunger, C.D., S.W. Culman, Peralta, A.L. DuPont, S.T., Lennon, J.T., and Snapp, S.S. 2019. Perennial grain crop roots and nitrogen management shape soil food webs and soil carbon dynamics. *Soil Biology and Biochemistry*, 137:107573.

Sprunger, C.D., S.W. Culman, M. Thuita, C.A. Palm, B. Vanlauwe. 2019. Long-term application of low C:N residues enhances maize yield and soil nutrient pools across Kenya. *Nutrient Cycling in Agroecosystems*, 114:261-276.

+Pugliese, J.Y., S.W. Culman, **C.D. Sprunger**. 2019. Grain and forage harvest of a perennial grain crop, Kernza (*Thinopyrum intermedium*), increases its productivity and soil nutrient cycling. *Plant and Soil*, 437:1-2, 241-254.

Sprunger, C.D., S.W. Culman, G.P. Robertson, and S.S. Snapp. 2018. How does nitrogen and perenniality influence belowground biomass and nitrogen use efficiency in small grain cereals? *Crop Science*, 58, 2110-2120.

Sprunger, C.D., S.W. Culman, G.P. Robertson, and S.S. Snapp. 2018. Perennial grain on a Midwest Alfisol shows no sign of early soil carbon gain. *Renew Agric Food Syst*, 33: 360-372.

Sprunger, C.D. and G.P. Robertson. 2018. Early accumulation of active fraction soil carbon in newly established cellulosic biofuel systems. *Geoderma*, 318, 42-51.

Sprunger, C.D., L.G. Oates, R.J. Jackson and G.P. Robertson. 2017. Plant community composition influences fine root production and biomass allocation in perennial bioenergy cropping systems of the upper Midwest, USA. *Biomass and Bioenergy*, 105, 248-258.

In Preparation:

*Martin, T., S.W. Culman, **C.D., Sprunger**. Fine roots influence soil health in row-crop systems with varying tillage intensity and crop rotational diversity. *To be submitted to Nutrient Cycling in Agroecosystems*.

Martin, T., J. Wade., P. Singh, **C.D., Sprunger**. A Conceptual Framework for Assessing the Suitability of Novel Soil Biological Health Indicators in Varying Agroecosystems. *To be submitted to Soil Biology and Biochemistry*.

Sprunger, C.D., M. Mann*, S.W. Culman. How do tillage intensity and crop rotational diversity influence aggregate stability on organic farms across the Eastern Corn Belt? *To be submitted to Organic Agriculture*.

*Singh, P., N. Kawa., **C.D. Sprunger**. Linking soil health indicators to farmer perceptions of soil health. *To be submitted to Journal of Soil and Water Conservation*.

Published Datasets

Sprunger, C. D. and G. P. Robertson. 2018. Data from: Early accumulation of active fraction soil carbon in newly established cellulosic biofuel systems. Dryad Digital Repository. <https://doi.org/10.5061/dryad.7jq46> doi: 10.5061/dryad.7jq46.

Competitive Grants

Active grants:

Hathey, J., N. Basta, M. Davies, M. Rodriguez, B. Slater, **C.D. Sprunger**., B. Wenner, R. Williams. 2021-2025. FUTURE Restoration: Food in Urban Environments-Training

Undergraduates for Research and Extension in restoration and agroforestry. USDA Education Workforce Development. \$499,879.

Jackson-Smith, D., M. Chiavegato, S. Culman, S. Lyon, T. Parker, A. Shah, and **C.D. Sprunger**. 2021-2025. Comparing Environmental Tradeoffs and Synergies of Alternative Modes of Integrating Livestock into Cash Grain Cropping Systems. USDA NIFA IDEAS. \$999,408.

Sprunger, C.D. 2020-2021. Nematode Quantification in Ohio Soybean Fields. Ohio Soybean Council. \$35,000.

Lindsey, A. and **C.D. Sprunger**. 2021-2025. After the Flood: Impacts on Rhizosphere Biology, Nutrient Cycling, and Corn Growth and Yield. USDA AFRI. \$500,000.

Martin, K*. and **C.D. Sprunger**. 2020-2021. The use of nematodes and enzyme activities for on-farm soil biological health tests. USDA North Central Sustainable Agriculture Research and Education Graduate Student Grant. \$10,875.

Sprunger, C.D., N.C. Kawa, J.E. Doll, P. Singh. 2020-2021. How can soil health indicators inform farmers' soil conservation practices and climate adaptation strategies? InFACT Linkage and Leverage Grant. \$34,153.

Culman, S.W., **Sprunger, C.D.**, M. Sulc, B. Ward, R. Hayden, J. Jungers, M. Ryan, T. Crews, and L. DeHaan. 2019-2023. Organic dual-use perennial grain crops: Pathways to profitability and soil health. USDA OREI. \$1,776,905.

Lipschitz, F., B. Flemming, S. Inwood, S. Karle, B. Milligan, Z. Plakias, **C.D. Sprunger**, and P. Summerlin. 2019-2020. Identifying opportunities for Landscape Architectural Engagement with Climate Smart Agriculture. InFACT Linkage and Leverage Grant 2019. \$34,613.

Lindsey, L. E. Hawkins, and **C.D. Sprunger**. 2019-2020. Identifying the cause of soybean self-thinning using Climate FieldView™. Bayer Crop Science. \$68,512.

Sprunger, C.D. 2019-2021. Rainfall extremes and rhizosphere dynamics: Implications for soil health and crop productivity. OARDC Seeds. \$49,987.

Pending

Sprunger, C.D. Linking farmer management decisions to soil health outcomes. FFAR New Innovator Award. \$448,943.33.

Submitted but unsuccessful:

Sprunger, C.D. Advancing plant production and diversifying STEM through dedicated training and mentorship. USDA NIFA National Needs Fellowship Program. \$79,500.

Jackson-Smith, D., Culman, S.W., Dooah, D., Kumarappan, S., **Sprunger, C.D.** Improving the Value of Scientific Research on Organic Systems: Incorporating Soil Balancing into Soil Health Management through Tiered Collaborative Research. USDA OREI. \$1,499,935.

Mercer, K., **C.D. Sprunger**, R. Dick, H. Perales, and V. Bernau. Dissecting the impacts of genetic and environmental variation on nitrogen fixation in maize. USDA AFRI. \$498,955

Sprunger, C.D. Linking farmer management decisions to soil health outcomes. FFAR New Innovator Award. \$445,260.

Sprunger, C.D. and S.W. Culman. Uncovering the hidden half of cover crops: Linking belowground processes to soil health and agronomic performance. USDA AFRI. \$499,916

Culman, S.W. **C.D. Sprunger**, A. Hodson. Development of rapid nematode indicators to reflect soil food web functions. USDA AFRI. \$494,667.

Jackson-Smith, D., M. Chiavegato, S. Culman, S. Lyon, T. Parker, A. Shah, **C.D. Sprunger**, and H. Wang. 2019. Comparing Environmental Tradeoffs and Synergies of Alternative Modes of Integrating Livestock into Cash Grain Cropping Systems. USDA NIFA IDEAS. \$1,000,000.

Lindsey, A. and **C.D. Sprunger**. 2019. After the Flood: Impacts on Rhizosphere Biology, Nutrient Cycling, and Corn Growth and Yield. USDA AFRI. \$494,667.

Singh, P., N.C. Kawa, **C.D. Sprunger**. 2020. An integrated approach to assessing the impacts of extreme precipitation on soil health and farmer decision-making in Ohio. USDA North Central Sustainable Agriculture Research and Education Graduate Student Grant. \$9,930.

Chen, C., Lyon, S., Demyan, S., **Sprunger, C.D.** 2020. Wireless In-Situ Soil Sensing System Development. National Science Foundation. \$939,401.

Tomich, T.P., Scow, K., Hoy, C., Geisseler, D., Ullmann, K., Huber, P., Lipschitz, F., Culman, S.W., **Sprunger, C.D.**, and Jackson-Smith, D. 2018. Tipping the scales towards a sustainable food system connecting soil health practices from microbiomes to working landscapes. USDA SAS. \$9,997,893.

Completed:

Baethgaen, W. and **Sprunger, C.D.** 2016. Developing and assessing soil carbon management and restoration recommendations for climate smart agriculture: A pilot study with smallholder farmers in Tanzania. Columbia University, The Earth Institute: Cross-Cutting Initiative. \$30,000.

Sprunger, C.D. and G.P. Robertson. 2015. Biodiversity effects on soil carbon gain in annual and perennial cropping systems. USDA Sustainable Agriculture Research and Education Program; 2014-2015. \$6,382.

Invited Seminars, Extension Workshops, and Media

Sprunger, C.D. 2021. How do rhizosphere dynamics drive soil health in agroecosystems? Kellogg Biological Station Seminar Series, Michigan State University. Invited Seminar Speaker.

Sprunger, C.D. 2021. How do rhizosphere dynamics drive soil health in agroecosystems? Department of Environmental Science, Policy, and Management, University of California, Berkeley. Spring Seminar Series. Invited Seminar Speaker.

Sprunger, C.D. 2021. Which management practices most influence soil health in organic corn production? The Ohio State University Organic Webinar Series. Virtual Oral Presentation.

Sprunger, C.D. and T. Martin. 2020. Drivers of rhizosphere dynamics and soil biological health in agroecosystems. ASA-CSSA-SSSA International Meetings. Invited oral talk (Virtual).

Sprunger, C.D. 2020. How do rhizosphere dynamics drive soil health in agroecosystems? Department of Plant Science Fall Seminar Series, Penn State University. Invited Seminar Speaker.

Sprunger, C.D. 2020. Can nematodes serve as effective soil health indicators? Washington State University Soil Health Seminar. Oral Presentation.

Sprunger, C.D. 2020. The role that roots play in building soil organic matter and soil health. Association for Ohio Pedologists. February 27, 2020.

Sprunger, C.D. 2020. The role that roots play in building soil organic matter and soil health. Conservation Tillage Conference. March 4, 2020.

Sprunger, C.D. 2019. How do soils provide important ecosystem services? Invited Speaker. Environmental Professionals Network. Columbus, Ohio. December 4, 2019.

Sprunger, C.D. 2019. Perenniality or Diversity: Which is most effective at providing ecosystem services within agro-ecosystems? Ames, IA. Invited Speaker. Department of Agronomy seminar series, Iowa State University.

Sprunger, C.D. 2019. Embracing Difficult Conversations: The necessary path to diversifying soil science. Amherst, MA. Bridge Scholar/Invited Speaker. Stockbridge School of Agriculture Seminar Series: Bridge2Impacts, University of Massachusetts.

Sprunger, C.D. 2019. Perenniality or Diversity: Which is most effective at providing ecosystem services within agro-ecosystems? Amherst, MA. Bridge Scholar/Invited Speaker. Stockbridge School of Agriculture Seminar Series: Bridge2Science, University of Massachusetts.

Sprunger, C.D. 2019. Perenniality or Diversity: Which is most effective at providing ecosystem services within agro-ecosystems? Columbus, OH. Invited Speaker. Department of Horticulture and Crop Seminar Series, The Ohio State University.

Sprunger, C.D. 2019. What management practices most influence soil health in corn production? Conservation Tillage and Technology Conference. Ada, OH. Invited Speaker.

Sprunger, C.D. 2019. Sustainable Agriculture: Can we increase crop productivity while reducing agriculture's environmental footprint? Department of Biology Seminar Series, College of Wooster. Wooster, OH. Invited Seminar Speaker.

Sprunger, C.D. and S. W. Culman. 2019. On-farm evaluation of crop diversity effects on soil health and ecosystem function in the Great Lakes Region. Special Session. Soil Science Society of America International Annual Meetings. San Diego, CA. Invited Oral Presentation.

Sprunger, C.D. 2018. Root production and soil carbon dynamics in agroecosystems. Microbial Based Solutions for Agriculture. The Ohio State University. Wooster, OH. Invited Oral Presentation.

Sprunger, C.D. 2018. Root production and soil carbon dynamics in agroecosystems: A biogeochemical and social science approach. School of the Environment and Natural Resources, The Ohio State University. Invited Oral Presentation.

Sprunger, C.D. 2017. Managing soil carbon: Implications for enhanced crop productivity, long-term soil health, and climate change mitigation. Department of Biology Seminar Series, East Carolina University. Invited Seminar Speaker.

Sprunger, C.D. 2017. Diversity and Inclusion in STEM. Department of Biology, East Carolina University. Greenville, North Carolina. Invited Oral Presentation.

Sprunger, C.D. 2017. Soildoc Maproom Climate Tool Application. USAID funded workshop. Morogoro, Tanzania. Extension Talk: Invited Oral.

Sprunger, C.D. 2016. The importance of Active Soil C. Prairie Public: Main Street Radio. Radio Show Interview. Friday, July 22, 2016.
<http://www.prairiepublic.org/radio/mainstreet>

O'Neill, B.E. and **C.D. Sprunger**. 2015. Results of soil health tests on Michigan farms. Farming for the Future Conference. Paw Paw, MI. Extension Talk: Oral.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2013. Management impacts on belowground carbon dynamics: annual versus perennial cropping systems. Special Session on Managing Belowground Processes in Agroecosystems. Ecological Society of America Annual Meeting, Minneapolis, MN. Oral Presentation.

Sprunger, C.D. and B. Gottshall. 2012. Perennialization in Urban and Rural Landscapes to Enhance Ecosystem Services. LTER All Scientist Meeting. Estes Park, CO. Oral Presentation/Workshop Moderator.

Presentations

Sprunger, C.D. and Martin, T. 2020. Exploring the relationship between key soil health indicators and nematode community composition in agroecosystems. American Geophysical Union Annual Meetings (virtual). Poster Presentation.

Hoekstra, N.C. **C.D. Sprunger**, N.T. Basta, M.M Gardiner, and S.W. Culman. 2019. The impact of Vegetation Management Strategies on Soil Health in Urban Vacant Lots. Soil Science Society of America International Annual Meeting. San Diego, CA.

Wade, J., S.W. Culman, T.T. Hurisso, and **C.D. Sprunger**. 2019. Benefits and Limitations of Soil Carbon, Nitrogen and Biological Measures of Soil Health. Soil Science Society of America International Annual Meeting. San Diego, CA.

Sprunger, C.D., S.W. Culman, C.A. Palm, B. Vanlauwe. (2017). Integrated soil fertility management has altering effects on soil health and crop productivity across sites in Kenya. Soil Science Society of America Meeting. Tampa, Florida. Oral Presentation.

Sprunger, C.D., and G.P. Robertson. (2015). Differences in active, slow, and resistant soil carbon fractions under annual and perennial biofuel crops. Long Term Ecological Science All Scientists Meeting. Estes Park, Colorado. Poster Presentation.

Sprunger, C.D., G.P. Robertson, R.D. Jackson, and L.G. Oates. 2015. Differences in fine root production and C allocation among perennial cropping systems in contrasting soils of the upper Midwest. Ecological Society of America Annual Meetings. Baltimore, Maryland. Oral Presentation.

Sprunger, C.D., and G.P. Robertson. 2014. Differences in active and slow soil carbon fractions under annual and perennial biofuel crops. Soil Science Society of America Meeting. Long Beach, CA. Poster Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2013. Root production an indicator for belowground nitrogen use efficiency in perennial and annual grain cropping systems. Soil Science Society of America Meeting. Tampa, FL. Oral Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2013. Implications for carbon sequestration: Management effects on annual and perennial root production. Michigan Organic Reporting Session, East Lansing, MI. Poster Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2013. Implications for carbon sequestration: Management effects on annual and perennial root production. LTER Kellogg Biological Station All Scientist Meeting, East Lansing, MI. Poster Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2012. Implications for carbon sequestration: Management effects on annual and perennial root production. Soil Science Society of America Meeting, Cincinnati, OH. Poster Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2012. Annual vs. perennial roots: Implications for carbon sequestration in agriculture. Ford Foundation Fellowship Conference, Newport Beach, CA. Poster Presentation.

Sprunger, C.D., S.S. Snapp, and S.W. Culman. 2012. Conventional and Organic Management Effects on Annual and Perennial Root Biomass. Michigan Organic Reporting Session, East Lansing, MI. Poster Presentation.

Sprunger, C.D. and D. Zabowski. 2011. Organic farming and its effect on soil carbon content. Michigan Organic Reporting Session, East Lansing, MI. Poster Presentation.

Sprunger, C.D. and D. Zabowski. 2009. Organic farming and its effect on soil carbon content. Program on the Environment Symposium, University of Washington, Seattle. Oral Presentation.

Sprunger, C.D. and D. Zabowski. 2009. Organic farming and its effect on soil carbon content. Soil Science Society of America Meeting, Pittsburgh. Poster Presentation.

Fellowships, Honors, and Awards

National Science Foundation Post-Doctoral Fellowship in Biology, \$138,000	2016,2017
ASA, CSSA, SSSA Graduate Student Leadership Award	2014
Kellogg Biological Station Graduate Research Fellowship, \$1000	2014
ASA, CSSA, SSSA Future Leaders in Science Award, Washington D.C.	2014
National Ford Foundation Fellowship, \$66,000	2012-2014
Michigan State University Enrichment Fellowship, \$48,000	2010, 2015

Soil Science Society of America Meeting, Cincinnati, OH, Student Poster Award	2012
Michigan Organic Reporting Session, Graduate Student Poster Award	2013
National Science Foundation Graduate Research Fellowship (Honorable mention)	2012
Kellogg Biological Station, Summer Student Fellowship, \$1000	2011
Michigan Organic Reporting Session, Graduate Student Poster Award	2011
Undergraduate Travel Award, Forest Resources, University of Washington, \$400	2009

Teaching, Advising, and Mentoring

Teaching

Instructor, The Ohio State University, *Root and Rhizosphere Ecology* 2019-Present

Instructor, The Ohio State University, *Advanced Principles in Enviro Sci* 2021-Present

Co-Instructor, The Ohio State University, ENR 8890.04 Spring 2020-Present

Graduate Student Chair

Current: Tvisha Martin (PhD, ENR), Prabhojot Singh (PhD, ESGP), Cole Goldman (MS, ENR), MK Klenkar (MS, ENR), and Danielle Bush (MS, ENR)

Completed: Tvisha Martin (MS, ENR), Prabhojot Singh (MS, ESGP)

Graduate Student Committee Member (8 total)

Current MS Students: and Christine Charles (SENR), Ashly Dyck (SENR), Chee Gang Ngui (HCS)

Complete: Francis Clark (HCS), Ana Vazquez (Plant Pathology), Jenna Moore (HCS)

Current PhD students: Andrea Leiva Soto (HCS); Jack McCoy (HCS); Sean Fenstemaker (HCS); Xin Lin (EEOB), Lourdes Arrueta Antequera (FABE)

Post-Bachelor Technicians

- Nicole Hoekstra
- Meredith Mann
- Louceline Fleuridor

Undergraduate Research Assistants and Undergraduate Research Distinction

- Dani Alabyadh (Fall 2020-Present)
- Jacob Murray (Spring 2021-Present)

Guest Speaker

Spring 2021

- Assessing soil health on farmer field
- ESPM 290, Science of Healthy Soils University of California, Berkeley

Guest Lecture

Fall 2019

- The Rhizosphere: Important for Food production and the Environ.
- ENR 3000, The Ohio State University

Guest Lecture

Summer 2019

- The Rhizosphere: Important for Food production and the Environ.
- ENR 3000, The Ohio State University

Guest Lecture

Summer 2019

- How to identify a research question?
- Summer Research Opportunities Program, OARDC

Guest Instructor

Spring 2019

- Soil Science Graduate Seminar
- Organized Inaugural OSU Soil Science Symposium

Invited Guest Lecture

November 2018

- Crop rotations, diversity, and perenniality impacts on nutrient cycling
- SENR Soil Fertility Course. Wooster, OH.

Invited Guest Lecture

November 2018

- Sustainable management practices for enhanced yields and ecosystem services
- ATI Soil fertility Course. Wooster, OH.

Invited Guest Lecture

November 2017

- Sustainable management practices for enhanced yields and ecosystem services
- SENR Soil Fertility Course. Columbus, OH.

Mentor to Alessandra Zuniga Summer 2014

- Research Experience for Undergraduates Program at the Kellogg Biological Station.
- Completed M.S. in Biology from Northern Arizona University (2017)

Mentor to Lazarius Miller Summer 2014

- Undergraduate Research Apprentice Program at the Kellogg Biological Station

Mentor and Supervisor to Marie-Flore Doyen Summer 2013

- Undergraduate Exchange Program between the Kellogg Biological Station and Purpan University
- Completed Masters of Agriculture from Purpan University (2016)

Mentor and Tutor to twenty Sexton high school students 2011-2012

- College Ambition Program at Sexton High School, Lansing MI.

Service

The Ohio State University

- SENR Fellowship Committee
- Spring 2021-Present

The Ohio State University/OARDC

- ORIP Committee
- January 2020-Present

Soil Science Society of America Science Outstanding Dissertation Committee

- January 2020-Present

Soil Science Society of America Science Policy Committee

- January 2020-Present

Agronomy, Crops, and Soils Diversity Society Committee

- January 2020-Present

The Ohio State University

- SENR Academic Affairs Committee
- Fall 2019-Present

The Ohio State University

- InFACT Strategy, Research and Grant Opportunities
- Fall 2019 (August 22, 2019)

The Ohio State University

- SENR DIJE Taskforce
- Spring 2019-Present

The Ohio State University

- Alpha Zeta Partners
- Spring 2019

The Ohio State University

- MENR Learning Objectives Ad Hoc Committee
- Spring 2019

The Ohio State University

- SENR Hydrology Position Search Committee
- Fall 2018-Spring 2019

The Ohio State University

- SENR Soil Science Curriculum Re-vamp
- Weekly meetings, Fall 2018; Spring 2019; Fall 2019

The Ohio State University

- InFact Discovery Theme Strategic Planning Retreat, Initiative for Food and AgriCultural Transformations, September 6, 2018

Peer Reviewer: PNAS, Biogeochemistry, Agriculture, Ecosystems, and the Environment, Plant and Soil, Soil Science Society of America, Geoderma, Agronomy Journal, Applied Ecology, Applied Soil Ecology, Nutrient Cycling in Agroecosystems, Global Change Biology

Mentor, The Fairy God-Sister mentoring program,
New York City

February 2017-April 2018

Tour Guide, Long Term Ecological Research Site
Kellogg Biological Station, Michigan State University

June 2014-2015

Communicating Science Volunteer, Science Festival

April 2014

Michigan State University

Graduate Student Representative , Seminar Committee Kellogg Biological Station, Michigan State University	2014-2015
Graduate Student Representative , Academic Programs Committee, Kellogg Biological Station, Michigan State University	2013-2014
Communicating Science Volunteer , Share the harvest, Kellogg Biological Station, Michigan State University	Oct. 2013
Graduate Student Representative , Graduate Program Committee, Department of Plant, Soil, and Microbial Sciences, Michigan State University	2011-2013
Secretary , Crop and Soil Science Graduate Student Organization. Department of Plant, Soil, and Microbial Sciences, Michigan State University	2010-2013
Co-Chair , Professional Development Committee, Graduate Women in Science Association, Michigan State University Chapter	2011-2012

Professional Development Training

Teaching Assistant Seminar and Orientation, Michigan State University	2013
Science policy, Communication, and Advocacy training, ASA, CSSA,SSSA	2014
Mentoring workshop, W.K. Kellogg Biological Station 2013	
Stable Isotope Biogeochemistry intensive course, Michigan State University	2012
Cropping System Modeling Course (SALUS), Michigan State University	2011
40-hour Hazardous Waste Training, Environmental Protection Agency	2009
Resources Conservation and Recovery Act three-day training, McCoy Associates	2008

Professional Memberships

Ecological Society of America, Soil Science Society of America, Crop and Soil Science Society of America, and Agronomy Society of America, Association for Women Soil Scientists, Graduate Women in Science, Xi Sigma Pi Honor Society.

Outreach, Public Engagement, Diversity and Inclusion

Generated soil health test results for 22 farmers across Ohio. Fall 2020.

Judge for Agronomy, Crops, and Soils Student Diversity Poster Competition. ASA-CSA-SSSA. Virtual Annual Meetings. November 2020.

Leaders of Color Career Panel: Young Professionals in the Environmental Space. River Network. October 7, 2020.

European Geosciences Union. Black in Soil Science Feature. Blog Post. 2020.

<https://blogs.egu.eu/divisions/sss/2020/07/06/black-in-soil-science/>

Soil health in the No-till trial presentation to legislative staffers. CFAES. August 23, 2019.

Designed hands on soil science activities for 5th and 6th grade students as part of the Expanding Your Horizons Girl's Science Day. College of Wooster. April 6th, 2019.

Lin, E., **C.D. Sprunger**, N. T. Basta. Report on Heavy Metal Contamination from UXO and Landmine Areas in Cambodia. Cambodian government. April 2019.

Sprunger, C.D. 2019. Feature Interview. Women in Ag Science Organization. April 2, 2019. <https://www.womeninagscience.org/post/christine-sprunger-soil-science-assistant-professor>.

Soil health testing for organic corn growers across Michigan, Indiana, Ohio, and Pennsylvania. Fall 2018 and Spring 2019.

Generated soil health test results for 200+ farmers across the Great Lakes Region. Fall and Fall 2018 and Spring 2019.