

# **M. Scott Demyan, PhD**

**Assistant professor**  
School of Environment and Natural  
Resources

Sustainability Institute, Core Faculty  
Member  
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## **Education**

- 2013            PhD. Major: Agricultural Sciences. University of Hohenheim, Stuttgart, Germany. 2013. Dissertation: “Development of coupled mid-infrared spectroscopic and thermal analytical approaches for the characterization and modeling of soil organic matter dynamics of arable soils.”
- 2006            MSc. Major: Soil Science. The Ohio State University, Columbus, Ohio, USA. 2006. Thesis: “Chemical and physical changes in twenty five year- old minesoils in Southeast Ohio.”
- 2003            BSc. Natural Resources. Major: Environmental Science. The Ohio State University, Columbus, Ohio, USA.

## **Work experience**

- Jan 2017-       Assistant professor (100%), soil and environmental mineralogy at the Ohio State University, School of Environment and Natural Resources.
- Jan 2017-       Core faculty member, Sustainability Institute (formerly the Sustainable and Resilient Discovery Theme), The Ohio State University
- Dec 2013-Nov 2016 Post doctoral researcher (100%) at the University of Hohenheim, Institute of Crop Science within the Research Unit “*Agricultural Landscapes under Global Climate Change – Processes and Feedbacks on a Regional Scale (FOR 1695)*.”

Apr 2012-Dec 2013 Research assistant (65% April to July, 2012; 100% Aug, 2012-Dec, 2013) at the University of Hohenheim, Institute of Crop Science within the Research Unit “*Agricultural Landscapes under Global Climate Change – Processes and Feedbacks on a Regional Scale (FOR 1695)*.”

Sept 2008-Mar 2012 Research assistant (50%) at the University of Hohenheim, Institute of Plant Production and Agroecology in the Tropics and Subtropics, Stuttgart, Germany within PAK Project 346, “*Structure and Functions of Agricultural Landscapes under Global Climate Change-Processes and Projections on a Regional Scale*.”

Jun 2006-Aug 2008 U.S. Peace Corps environmental education volunteer- Gyumri, Armenia.

Jan 2004-Jun 2006 Graduate teaching/research associate in the School of Natural Resources, The Ohio State University, Columbus, Ohio, USA. Teaching associate for introductory soil science laboratory and pedology courses.

Sept 2001-Dec 2003 Student laboratory worker (part time), Soil Characterization Lab, Cooperative Soil Survey, The Ohio State University, Columbus, Ohio, USA.

Oct 2000-Sept 2001 Student laboratory worker (part time), Plant Biotechnology Center, The Ohio State University, Columbus, Ohio, USA.

## Publications

**Demyan**, M.S., Smeck, N., 2022. Chemical, physical-temporal and spatial changes in 25-year-old mine soils in Southeast Ohio. *Land Degradation and Development* 33, 294–307. doi:10.1002/ldr.4150

Doležalová-Weissmannová, H., Malý, S., Brtnický, M., Holátko, J., **Demyan**, M.S., Siewert, C., Tokarski, D., Kameníková, E., Kučerík, J., 2023. Practical applications of thermogravimetry in soil science: Part 5. Linking the microbial soil characteristics of grassland and arable soils to thermogravimetry data. *Journal of Thermal Analysis and Calorimetry* 148, 1599–1611. doi:10.1007/s10973-022-11709-6

Mirzaeitalarposhti, R., Shafizadeh-Moghadam, H., Taghizadeh-Mehrjardi, R., **Demyan**, M.S., 2022. Digital Soil Texture Mapping and Spatial Transferability of Machine Learning Models Using Sentinel-1, Sentinel-2, and Terrain-Derived Covariates. *Remote Sensing* 14. doi:10.3390/rs14235909

Weber, T.K.D., Ingwersen, J., Högy, P., Poyda, A., Wizemann, H.-D., **Demyan, M.S.**, Bohm, K., Eshonkulov, R., Gayler, S., Kremer, P., Laub, M., Nkwain, Y.F., Troost, C., Witte, I., Reichenau, T., Berger, T., Cadisch, G., Müller, T., Fangmeier, A., Wulfmeyer, V., Streck, T., 2022. Multi-site, multi-crop measurements in the soil–vegetation–atmosphere continuum: a comprehensive dataset from two climatically contrasting regions in southwestern Germany for the period 2009–2018. *Earth System Science Data* 14, 1153–1181. doi:10.5194/essd-14-1153-2022

Deiss, L., Sall, A., **Demyan, M.S.**, Culman, S.W. 2021. Does crop rotation affect soil organic matter stratification in tillage systems? *Soil and Tillage Research*, 209.

Laub, M., Ali, R.S., **Demyan, M.S.**, Nkwain, Y.F., Poll, C., Högy, P., Poyda, A., Ingwersen, J., Blagodatsky, S., Kandeler, E., Cadisch, G. 2021. Modeling temperature sensitivity of soil organic matter decomposition: Splitting the pools. *Soil Biology and Biochemistry*, 153.

Burgos Hernández, T. D., Deiss, L., Slater, B. K., **Demyan, M. S.**, Shaffer, J. M. 2021. High-throughput assessment of soil carbonate minerals in urban environments. *Geoderma*, 382 doi:10.1016/j.geoderma.2020.114778

Deiss, L., Culman, S.W., **Demyan, M.S.**, 2020. Grinding and spectra replication often improves mid-DRIFTS predictions of soil properties. *Soil Science Society of America Journal* 1-16. <https://doi.org/10.1002/saj2.20021>

Deiss, Leonardo, Margenot, A.J., Culman, S.W., **Demyan, M.S.**, 2020. Tuning support vector machines regression models improves prediction accuracy of soil properties in MIR spectroscopy. *Geoderma* 365, 114227.  
<https://doi.org/10.1016/j.geoderma.2020.114227>

Deiss, L., Margenot, A.J., Culman, S.W., **Demyan, M.S.**, 2020. Optimizing acquisition parameters in diffuse reflectance infrared Fourier transform spectroscopy of soils. *Soil Science Society of America Journal* 1-19. <https://doi.org/10.1002/saj2.20028>

Kučerík, J., Svatoň, K., Malý, S., Brtnický, M., Doležalová-Weismannová, H., **Demyan, M.S.**, Siewert, C., Tokarski, D., 2020. Determination of soil properties using thermogravimetry under laboratory conditions. *European Journal of Soil Science* 71, 415–419. <https://doi.org/10.1111/ejss.12877>

Laub, M., **Demyan, M.S.**, Nkwain, Y.F., Blagodatsky, S., Kätterer, T., Piepho, H.-P., Cadisch, G. 2020. DRIFTS band areas as measured pool size proxy to reduce parameter uncertainty in soil organic matter models, *Biogeosciences*, 17, 1393–1413, <https://doi.org/10.5194/bg-17-1393-2020>

Wade, J., Culman, S.W., Logan, J.A.R., Poffenbarger, H., **Demyan, M.S.**, Grove, J.H., Mallarino, A.P., McGrath, J.M., Ruark, M., West, J.R., 2020. Improved soil biological health increases corn grain yield in N fertilized systems across the Corn Belt. *Scientific Reports* 10:3917. <https://doi.org/10.1038/s41598-020-60987-3>

David, J., Weissmannová, H.D., Steinmetz, Z., Kabelíková, L., **Demyan, M.S.**, Šimečková,

J., Tokarski, D., Siewert, C., Schaumann, G.E., Kučerík, J., 2019. Introducing a soil universal model method (SUMM) and its application for qualitative and quantitative determination of poly(ethylene), poly(styrene), poly(vinyl chloride) and poly(ethylene terephthalate) microplastics in a model soil. *Chemosphere* 225, 810–819.  
<https://doi.org/10.1016/j.chemosphere.2019.03.078>

Kučerík, J., Svatoň, K., Malý, S., Brtnický, M., Doležalová-Weismannová, H., **Demyan, M.S.**, Siewert, C., Tokarski, D., 2019. Determination of soil properties using thermogravimetry under laboratory conditions. *Eur J Soil Sci.* <https://doi.org/10.1111/ejss.12877>

Poyda, A., Wizemann, H.-D., Ingwersen, J., Eshonkulov, R., Högy, P., **Demyan, M.S.**, Kremer, P., Wulfmeyer, V., Streck, T., 2019. Carbon fluxes and budgets of intensive crop rotations in two regional climates of southwest Germany. *Agriculture, Ecosystems & Environment* 276, 31–46. <https://doi.org/10.1016/j.agee.2019.02.011>

Rostami, M., Talarposhti, R.M., Mohammadi, H., **Demyan, M.S.**, 2019. Morphophysiological Response of Saffron (*Crocus Sativus L.*) to Particle Size and Rates of Zinc Fertilizer. *Communications in Soil Science and Plant Analysis* 50, 1250–1257. <https://doi.org/10.1080/00103624.2019.1614602>

Wade, J., Culman, S.W., Sharma, S., Mann, M., **Demyan, M.S.**, Mercer, K.L., Basta, N.T., 2019. How Does Phosphorus Restriction Impact Soil Health Parameters in Midwestern Corn-Soybean Systems? *Agron. J.* 111, 1682–1692.  
<https://doi.org/10.2134/agronj2018.11.0739>

Ali, R.S., Kandeler, E., Marhan, S., **Demyan, M.S.**, Ingwersen, J., Mirzaeitalarposhti, R., Rasche, F., Cadisch, G., Poll, C. 2018. Controls on microbially regulated soil organic carbon decomposition at the regional scale. *Soil Bio. Biochem.*; **118**: 59-68.

Kučerík, J., Tokarski, D., **Demyan, M.S.**, Merbach, I., Siewert, C. 2018. Linking soil organic matter thermal stability with contents of clay, bound water, organic carbon and nitrogen. *Geoderma*, **316**: 38-46.

Nkwain, F.N., **Demyan, M.S.**, Rasche, F., Dignac, M.-F., Schulz, E., Kätterer, T., Müller, T., Cadisch, G. 2018. Coupling pyrolysis with mid-infrared spectroscopy (Py-MIRS) to fingerprint soil organic matter bulk chemistry. *J. Anal. Appl. Pyrolysis*, 133: 176-184. doi.org/[10.1016/j.jaap.2018.04.004](https://doi.org/10.1016/j.jaap.2018.04.004)

Tokarski, D., Kučerík, J., Kalbitz, K., **Demyan, M. S.**, Merbach, I., Barkusky, D., Ruehlmann, J. and Siewert, C. 2018. Contribution of organic amendments to soil organic matter detected by thermogravimetry. *J. Plant Nutr. Soil Sci.*, 181: 664-674. doi:[10.1002/jpln.201700537](https://doi.org/10.1002/jpln.201700537)

Mirzaeitalarposhti, R., **Demyan, M. S.**, Rasche, F., Cadisch, G., & Müller, T. 2017. Mid-infrared spectroscopy to support regional-scale digital soil mapping on selected

croplands of South-west Germany. *Catena*, **149**, 283-293.  
doi:10.1016/j.catena.2016.10.001

**Demyan, M.S.**, J. Ingwersen, Y.N. Funkuin, R.S. Ali, R. Mirzaeitalarposhti, F. Rasche, C. Poll,

T. Müller, T. Streck, E. Kandeler, & G. Cadisch. 2016. Partitioning of ecosystem respiration in winter wheat and silage maize-modeling seasonal temperature effects. *Agriculture, Ecosystems and Environment*, **224**, 131-144.

Kucerik, J., **M.S. Demyan**, & C. Siewert. 2016. Practical application of thermogravimetry in soil science: Part 4. Relationship between clay, organic carbon and organic matter contents. *Journal of Thermal Analysis and Calorimetry*, **123**, 2441-2450.

Mirzaeitalarposhti, R., **M.S. Demyan**, F. Rasche, G. Cadisch, & T. Müller. 2016. Overcoming carbonate interference on labile soil organic matter peaks for midDRIFTS analysis. *Soil Biology and Biochemistry*, **99**, 150-157.

Ali, R.S., J. Ingwersen, **M.S. Demyan**, Y.N. Funkuin, H.-D. Wizemann, E. Kandeler, & C. Poll. 2015. Modelling *in situ* activities of enzymes as a tool to explain seasonal variation of soil respiration from agro-ecosystems. *Soil Biology and Biochemistry*, **81**, 291-303.

Mirzaeitalarposhti, R., **M.S. Demyan**, F. Rasche, M. Poltoradnev, G. Cadisch, & T. Müller. 2015. MidDRIFTS-PLSR-based quantification of physico-chemical soil properties across two agroecological zones in Southwest Germany: generic independent validation surpasses region specific cross-validation. *Nutrient Cycling in Agroecosystems*, **102**:265-283.

Smirnova, N., **Demyan, M.**, Rasche, F., Cadisch, G. & Müller, T. 2014. Calibration of CO<sub>2</sub> trapping in alkaline solutions during soil incubation at varying temperatures using a Respicond  
VI. *Open Journal of Soil Science*, **4**, 161-167. DOI: 10.4236/ojss.2014.45019

**Demyan, M.S.**, Rasche, F., Schütt, M., Smirnova, N., Schulz, E. & Cadisch, G. 2013. Combining a coupled FTIR-EGA system and *in situ* DRIFTS for studying soil organic matter in arable soils. *Biogeosciences*, **10**, 2897-2913. doi:10.5194/bg-10-2897-2013

Giacometti, C., **Demyan, M.S.**, Cavani, L., Marzadori, C., Ciavatta, C. & Kandeler, E. 2013. Chemical and microbiological soil quality indicators and their potential to differentiate fertilization regimes in temperate agroecosystems. *Applied Soil Ecology*, **64**, 32-48. doi:10.1016/j.apsoil.2012.10.002.

Siewert, C., Barsukov, P., **Demyan, S.**, Babenko, A., Lashchinsky, N., & Smolentseva, E. 2013. Teaching soil science and ecology in West Siberia: 17 years of field courses. *Environmental Education and Research*, **20**, 858-876. doi:10.1080/13504622.2013.839778.

**Demyan, M.S.**, Rasche, F., Schulz, E., Breulmann, M., Müller, T. & Cadisch, G. 2012. Use of specific peaks obtained by diffuse reflectance Fourier transform mid-infrared

spectroscopy to study the composition of organic matter in a Haplic Chernozem. European Journal of Soil Science, **63**, 189-199. DOI: 10.1111/j.1365-2389.2011.01420.x

Siewert, C., **Demyan, M.S.** & Kučerík, J. 2012. Interrelations between soil respiration and its thermal stability. *Journal of Thermal Analysis and Calorimetry*, **110**, 413-419. DOI: 10.1007/s10973-011-2099-z

Rhoades, J.L., **Demyan, M.S.** & Orr, B. 2011. Impacts of Deforestation and Land Cover Change on Mountain Soils in Hrazdan, Armenia. *Journal of Sustainable Forestry*, **30**, 677-696. DOI: 10.1080/10549811.2011.567965

## Invited Presentations

Demyan, M.S. Monitoring, recording, and verification of soil organic carbon for carbon offset projects. Association of Ohio Pedologists, Winter Meeting. March 4th, 2022.

Demyan, M.S., Tepanosyan, G., and Sahakyan, L. Infrared spectroscopy for rapid soil assessment. International Conference on Agricultural Science 2022, Innovative Agriculture for Sustainable Development under Climate Change. December 8th-9th, 2022. Can Tho University.

Demyan, M.S. Investigating the use of visible/near infrared spectroscopy for land degradation assessment. Department of Geochemistry, Center for Ecological-Noosphere Studies, National Academy of Science. July 2nd, 2019. Yerevan, Armenia.

Demyan, M.S. Visible/Near infrared spectroscopy for land degradation assessment; First results. Center for Ecological-Noosphere Studies, National Academy of Science. July 27<sup>th</sup>, 2019. Yerevan, Armenia.

Demyan, M.S. Minesoil genesis, morphology, and classification. Association of Ohio Pedologists, Fall Workshop. September 12<sup>th</sup>, 2019.

## Other conference contributions

Demyan, M.S. 2020. Combining Infrared Spectroscopic Analyses with Characterization Data to Study Minesoil Variability and Evolution. Soil Science Society of America Annual Meeting. Virtual. November, 2020.

Demyan, S., N. Smeck How Does Soil Spatial Variability Change over 25 Years in a Reclaimed Strip Mine? 2019. Soil Science Society of America Annual Meeting, San Diego, California, USA.

Demyan, S., Ågren, G., Cadisch, G., Funkuin, Y., Schulz, E., Kätterer, T., Bosatta, T., Rasche, F. & Müller, T. The Continuous Quality ( $q$ ) Theory of Soil Organic Matter: Can We Predict  $q$ ? SSSA International Soils Meeting. January 6-9, 2019. San Diego, California. Oral presentation.

Demyan, M. S., Deiss, L., Snyder, A., Doohan, T., Huang, W. What is soil mineralogy and why is it important? The Ohio context. Soil Research Symposium. School of

Environment and Natural Resources. The Ohio State University. Columbus, Ohio. March, 28th, 2019. Poster

Demyan, M.S., Davies, G.M., & Snyder, A. Pedogenesis in Soils Formed from Reclaimed Soda Ash Waste, Implications for Restoration. 2019 ASA-CSSA-SSSA International Annual Meeting, November 10th-13<sup>th</sup>, 2019. San Antonio, Texas. Oral presentation.

Demyan, S., Tepanosyan, G., Deiss, L., Saghatelian, A. Using portable visible/near infrared spectroscopy to compliment legacy soil data in Armenia. 2019 ASA-CSSA-SSSA International Annual Meeting, November 10th-13<sup>th</sup>, 2019. San Antonio, Texas. Poster

Demyan, S., R. Mirzaeitalarposhti, F. Rasche, N. Funkuin, R. S. Ali, T. Müller, and G. Cadisch. 20 April, 2016. General Assembly of the European Geosciences Union. Vienna, Austria. Oral presentation.

Demyan, S., Marohn, C., Rasche, F., Mirzaeitalarposhti, R., Funkuin, Y. N., Ali, R.S., Högy, P. Ingwersen, J., Wizemann, H.-D., Müller, T., Cadisch, G. Implications of spectroscopic and thermo-spectroscopic approaches for pool parameterization of soil organic matter models. 29 April, 2014. General Assembly of the European Geosciences Union. Vienna, Austria. Oral presentation.

Demyan, S., F. Rasche, C. Marohn, T. Müller, G. Cadisch. Implications of SOM model pool parameterization via different methods. 24<sup>th</sup> October, 2012. Soil Science Society of America Annual Meeting. Cincinnati, Ohio, U.S.A. Oral presentation.

Demyan, S., F. Rasche, S. Becker-Fazekas, M. Schütt, A. R. Zinkeng, E. Schulz, T. Müller, G. Cadisch. Coupled mid-infrared spectroscopy (MIRS) and thermally evolved gas analysis to study SOM dynamics in arable soils. 3<sup>rd</sup> International Symposium on Soil Organic Matter: Organic matter dynamics-from soils to oceans. 11<sup>th</sup>-14<sup>th</sup> July, 2011. Leuven, Belgium. Oral presentation.

Demyan, S., F. Rasche, E. Schulz, S. Becker-Fazekas, M. Breulmann, T. Müller, and G. Cadisch. 2010. Soil organic matter (SOM) characterization by coupled mid-infrared spectroscopy and thermal analyses to compliment SOM fractionation. 4<sup>th</sup> International Symposium on Organic Matter Stabilization: Organic matter stabilization and ecosystem functions. 19<sup>th</sup>-23<sup>rd</sup> September 2010. Presqu'ile de Giens, France. Poster

Demyan, S., N. Smirnova, F. Rasche, T. Müller, G. Cadisch. 2010. Characterization of Soil Organic Matter by Mid-Infrared Spectroscopy/Evolved Gas Analysis, Long Term Dynamics. Workshop: Regulation of soil organic matter and nutrient turnover in agriculture. University of Kassel, 12<sup>th</sup>-13<sup>th</sup> November 2009. Oral presentation

Demyan, S., F. Rasche, S. Becker-Fazekas, E. Schulz, T. Müller, and G. Cadisch. Soil organic matter characterization utilizing mid-infrared spectroscopy and thermal analyses. Euroleague for Life Sciences (ELLS) Science Student Conference on Climate Change, 4<sup>th</sup>-5<sup>th</sup> November, 2009 Hohenheim 2009. Poster

Demyan, S. and N. Smeck. 2005. Rapid pedogenesis in minesoils, changes in minesoils over 25 years. Soil Science Society of America Conference, Salt Lake City. Oral

presentation.

## Grants and awards

*Post-wildfire recovery and restoration of ecosystem productivity and soil health following wildfire in sagebrush rangelands.* USDA-NIFA. (\$499,590). Research Grant. P.I.: G.M. Davies, Co-I: J. Hattey, S. Culman, M.S. Demyan. 2020.

*Improved understanding and scaling of biologically relevant dynamic soil properties at the MLRA scale.* USDA-NRCS 2020 Soil Science Collaborative Research Grant. (\$260,805 total award). Research Grant. P.I. M.S. Demyan. Co-PI S. Culman. 2020.

*Quantifying soil health in Ohio soybean fields.* Ohio Soybean Council. (\$65,000 Total Award). Research Grant. PI: S. Culman Co-I: M.S. Demyan. 2020.

*Development of a restoration framework for human-degraded ecosystems.* OARDC SEEDS Partnership Grant FY20 (\$25,000 total award). Research Grant. P.I.: M.S. Demyan. Co-I: G.M. Davies. 2020.

*Investigating the capability for rapid, low-cost spectroscopic-based detection of soil degradation and soil health in Armenia.* American Research Institute of the South Caucasus. Research Fellowship. P.I. Demyan. (\$3,750). 2019

*Development of a restoration framework for human-degraded ecosystems.* PPG Industries. PIs; Demyan, M.S. and Davies, G.M.. (\$25,000). 2019

*To research the development and evaluation of pathways to net-zero emission agriculture and cropping systems.* Sloan Foundation. Lindsey, L., Shrestha, R., Jacinthe, P., Ren, W., Singh, M., Demyan, M.S., Lal, R., Lorenz, K. (\$1,494,969). 2019

*Enhancing Soil Ecosystem Services of the Campus Landscape to Advance Sustainability.* Ohio State Sustainability Fund, Office of Energy and Environment PIs: Lorenz, K., Lal, R., Neil, A., Slater, B., Demyan, M.S. (\$66,131). 2019

*Restoring Ecosystems with bio-based wastes for Blended Soils (REBLS), Sustainable and Resilient Economy Discovery Theme Seed Grant, The Ohio State University.* (PIs: M.S. Demyan, N. Basta, M. Davies, S. Hovick, S Kawa). 2017

Co-author of project proposal *Agricultural Landscapes under Global Climate Change – Processes and Feedbacks on a Regional Scale*” FOR1695 subproject P-3. (P.I.'s G. Cadisch and T. Müller). German Research Foundation. 2015

Unibund, Conference Travel Support University of Hohenheim. 2012

American Society of Agronomy Cross Cultural Exchange Scholarship.  
2002

### **Teaching/supervision**

- ENR 3500 *Introduction to Ecosystem Restoration*, five-lecture block on soil related to ecosystem restoration (Fall, 2017, 2018, 2019, 2021, 2022)
- ENR 4260 *Soil Resource Management*, instructor of record (Spring, 2018-current)
- ENR 4900.01 *Natural Resource Management*, instructor of record (Spring 2020-current)
- ENR 7530 *Soils and Carbon; Stabilization and Permanence* (Fall, 2020, 2022)
- ENR 7530 *Soil and Environmental Mineralogy* (Fall, 2018)
- ENR 8600 *Introduction to R* (co-instructor (Fall, 2022)
- ENR 8890.04 *Soil Science Graduate Seminar*, co-instructor (Fall, 2017-Spring, 2020)
- ENR 8980 Environment and Natural Resources Seminar (Fall, 2019, 2020)
- Supervised laboratory work and thesis writing of four MSc students,  
University of Hohenheim
- *Introduction to Soil Science*-graduate teaching assistant, The Ohio State University
- *Pedology* - graduate teaching assistant, The Ohio State University

Dec 2014 prepared and taught 2-week course for IAEA-FAO training mission on the use of Mid-Infrared Spectroscopy Techniques and Spectral Soil Library Data Analysis to Central University of Venezuela, Caracas, Venezuela (55 classroom and lab hours).

Aug 2012 prepared and delivered 2-week course for IAEA-FAO training mission on mid-infrared spectroscopy for research uses to the Peru Institute for Nuclear Energy, Lima, Peru (50 classroom and lab hours).

### **Outreach activities**

- NRCS Mine soils field day, May 4th, 2022.
- OSU-OSC-NRCS Soil Spectroscopy Workshop. May 26th, 2022.
- Speaker. Peace Corps Environment Programs: CFAES Faculty Share Their Experiences January 20th, 2022. Virtual. 10 participants.
- Professional Careers in Soil/Environmental Science. Demonstration and lesson on Soil Erosion and soil functions and possible careers at Olentangy Orange Middle School Science and Career Day. October 25<sup>th</sup>, 2019. Lewis Center, OH.

- Experience in Communicating soil science to different audiences. Presentation at Digging in with Ohio's Soil Experts event. Environmental Professionals Network December 4<sup>th</sup>, 2019.

## **Activities and Organizations**

- Faculty Mentor in the Second-year Transformational Experience Program (STEP), Student Life program. Advising 16 second-year students as they work on developing their signature project proposal.
- Secretary, Association of Ohio Pedologists.
- Member of Celebration of Students Program Awards Selection Committee, College of Food, Agriculture, and Environmental Science.
- College of Food, Agricultural, Environmental Science Undergraduate Research Forum judge (2017-2019)
- Denman Undergraduate Research Forum judge (2017)
- Soil Science Society of America –member
- Council for Tropical and Subtropical Agricultural Research -member
- German Soil Science Society (DBG) - member
- reviewer for manuscripts (Journal of Environmental Management, Catena, European Journal of Soil Science, Geoderma)
- Outstanding Reviewer (Catena, 2015)
- Soil Judging at the American Society of Agronomy Regional Contests (2002, 2003) and National Contest (2004)
- Soil Science-Ecological Field Excursion to Western Siberia, Russia (July 4th- 28th, 2004)
- Eagle Scout, Boy Scouts of America (March, 1998)