

Colby J. Moorberg, PhD, CPSS, PWS

Associate Professor of Soil Science
Kansas State University Department of Agronomy
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Areas of Interest

Soil science education, open textbooks, hydrogeology, root ecology, root imaging, and wetlands

Professional Preparation

Ph.D., Soil Science, North Carolina State University, Raleigh, 2014

Dissertation: *Dynamics of P release from wetlands restored on agricultural land*

Adviser: M. J. Vepraskas

Minor in Water Resources

M.S., Soil Science, North Carolina State University, Raleigh, 2010

Thesis: *Phosphorus Release Mechanisms in Rhizospheres of Wetland Trees*

Adviser: M. J. Vepraskas

B.S., Environmental Science, Iowa State University of Science and Technology, Ames, 2008

Cum Laude

Academic Appointments

Associate Professor, Kansas State University Department of Agronomy

June 2021 – present

Assistant Professor, Kansas State University Department of Agronomy

January 2015 – June 2021

Postdoctoral Researcher, University of Washington Civil & Environmental Engineering

January 2014 – December 2014

Professional Certifications and Credentials

Certificate in Effective College Instruction, Association of College and University Educators (ACUE) and the American Council on Education

Certified Professional Soil Scientist (CPSS), Soil Science Society of America, #334182

Professional Wetland Scientist (PWS), Society of Wetland Scientists, #3393

Peer-reviewed Publications

Mahler, R.L., M. Krzic, B. Garramon Merkle, **C. Moorberg**, E.C. Brevik. 2021. Natural sciences education in a COVID-19 world. *Nat. Sci. Educ. In Print.* doi.org/10.1002/nse2.20067.

Moorberg, C.J., S. Howe, K.J. Donnelly, D. Min. 2021. Perceptions of education during COVID-19 among agronomy, soil, and environmental science students. *Nat. Sci. Educ.* 50(1):e20055 doi.org/10.1002/nse2.20055.

Owen, R.K., A. Anderson, A. Bhandari, K. Clark, M. Davis, A. Dere, N. Jelinski, **C. Moorberg**, K. Osterloh, D. Presley, J. Turk, and R. Young. 2021. Evaluating student attitudes and learning at remote collegiate soil judging events. *Nat. Sci. Educ. In Print.* doi.org/10.1002/nse2.20065.

Rabenhorst, M.C., P.J. Drohan, J.M. Galbraith, **C. Moorberg**, L. Spokas, M.H. Stolt, J.A. Thompson, J., Turk, B.L. Vasilas, K.L. Vaughan. 2021. Mn-Coated IRIS to document reducing soil conditions. *Soil Sci. Soc. Am. J. In Print.* doi.org/10.1002/saj2.20301.

Brevik, E.C., H. Dolliver, S. Edinger-Marshall, D. Itkin, J. Johnson-Maynard, **C. Moorberg**, Y. Sanchez-de Leon, and J. Steffan. 2020. Undergraduate degrees that train students for soil science careers at universities in the USA and its territories. *Soil Science Society of America Journal.* In Print. doi: 10.1002/saj2.20140.

- Moorberg C.J.** An open annotated bibliography for soil and water conservation: A case study. *Nat Sci Educ.* 2020; e20014. doi.org/10.1002/nse2.20014.
- Turner, J., **C. Moorberg**, A. Wong, K. Shea, M. Waldrop, M. Turetsky, R. Neumann. Getting to the root of plant-mediated methane emissions and oxidation in a thermokarst bog. *JGR Biogeosciences*. Accepted. doi: 10.1029/2020JG005825.
- Hansel, F., D. Diaz, A. Rosa, and **C. Moorberg**. 2019. Phosphorus fertilizer placement and rate affect soybean root growth and nutrient uptake in soil with high fertility. *Agronomy Science and Biotechnology* 5(1):62. doi:10.33158/ASB.2019v5i1p62.
- Jelinski, N., **C.J. Moorberg**, J. Bell, M.D. Ransom. 2019. A survey of introductory soil science courses and curricula in the United States. *Nat. Sci. Educ.* 48(1):180019. doi:10.4195/nse2018.11.0019.
- Neumann, R.B., **C.J. Moorberg**, J.D. Lundquist, J.C. Turner, M.P. Waldrop, et al. 2019. Warming effects of spring rainfall increase methane emissions from thawing permafrost. *Geophysical Research Letters*. 46(3):1393-1401. doi:10.1029/2018GL081274.
- Moorberg, C.J.** and D.A. Crouse. 2017. An open source laboratory manual for introductory undergraduate soil science courses. *Nat. Sci. Educ.* 46(1):170013. doi:10.4195/nse2017.06.0013.
- Moorberg, C. J.**, M. J. Vepraskas, and C. P. Niewhoener. 2017. Phosphorus dynamics near bald cypress roots in a restored wetland. *Soil Sci. Soc. Am. J.* 81(6):1652-1660. doi:10.2136/sssaj2017.07.0228.
- Moorberg, C.J.**, M.J. Vepraskas, and C.P. Niewoehner. 2014. Phosphorus dissolution in the rhizosphere of bald cypress trees in restored wetland soils. *Soil Sci. Soc. Am. J.* 79(1):343-355. doi:10.2136/sssaj2014.07.0304.
- Adewopo, J.B., R. Bhomia, M. Almaraz, A. Bacon, E. Eggleston, J. Judy, R. Lewis, M. Lusk, B. Miller, **C. Moorberg**, E. Hodges Snyder, M. Tiedeman, and C. VanZomeren. 2014. Top-ranked priority research questions for soil science in the 21st century. *Soil. Sci. Soc. Am. J.* 78(2):337-347. doi:10.2136/sssaj2013.07.0291.
- Moorberg, C.J.**, M. J. Vepraskas, and C.P. Niewoehner. 2013. Dynamics of P dissolution processes in the matrix and rhizospheres of bald cypress in saturated soil. *Geoderma*. 202:153-160. doi:10.1016/j.geoderma.2013.03.017.

Books

- Moorberg, C.J.**, and D.A. Crouse. 2021. *Soils Laboratory Manual, K-State Edition, Version 2.0*. New Prairie Press, Manhattan, KS. <https://newprairiepress.org/ebooks/39/>.
- Moorberg, C.J., ed.** 2019. *Soil and Water Conservation: An Annotated Bibliography*. New Prairie Press, Manhattan, KS. <https://newprairiepress.org/ebooks/30/>.

Book Excerpts

- Moorberg, C.J.** 2017. Management Practices to Promote Soil Structure. *In* N. Bumgarner. 2017. Tennessee Master Gardener Handbook. University of Tennessee Extension.

Websites

- Moorberg, C.J.**, D.A. Crouse. 2019. Open Access Soil Science. open.soilscience.info. Accessed August 22, 2019.

Selected Non-peer-reviewed Publications

- Moorberg, C.J.** 2020. An annotated bibliography for soil and water conservation. SWCS Conservogram. July.
- Majrashi, M., A.E. Obour, and **C.J. Moorberg**. 2019a. Crop Yield and Yield Stability as Affected by Long-Term Tillage and Nitrogen Fertilizer Rates in Dryland Wheat and Sorghum Production Systems. *Kansas Agricultural Experiment Station Research Reports* 5(6). doi: 10.4148/2378-5977.7800.

- Majrashi, M., A.E. Obour, and **C.J. Moorberg**. 2019b. Long-Term Tillage and Nitrogen Fertilizer Rates Effect on Grain Yield. Kansas Agricultural Experiment Station Research Reports 5(6): 16. doi: doi.org/10.4148/2378-5977.7801.
- Moorberg, C.** 2018. Establishing an Effective Teaching Program. *Crops, Soils, Agronomy News* 63(10): 40–42. doi: 10.2134/csa2018.63.1030.
- Moorberg, C.** 2016. From the Leadership: Finding the Win-Win in Revamping Federal Hiring Practices. Soil & Water Conservation Society Conservogram. December 2016.
- Vepraskas, M.J., J.G. White, D.D. Richter, and **C.J. Moorberg**. 2016. Phosphorus Fluxes in a Restored Carolina Bay Wetland Following Eight Years of Restoration: Final Report. Water Resources Research Institute of the UNC System. Project no. 12-02-W.

Teaching Experience

Courses Taught as Instructor of Record at Kansas State University

Soils – AGRON 305

Soils Judging – AGRON 415

Soil Genesis and Classification – AGRON 515

Natural Resources and Environmental Science Capstone – GENAG/NRES 582

Undergraduate Research in Agronomy – AGRON 598

Soil & Water Conservation – AGRON 635

Topics in Soil Science: Root & Rhizosphere Research – AGRON 935

Competitively Funded Proposals and Other Support

- Moorberg, C.J.**, E. Brevik, T. Carter, G. Liles, I. McDonald. Investigating the impact of open annotated bibliographies on student perception of information source credibility. Association of Public Land Grant Universities Innovative Teaching Award. \$5,000. January 2021 to December 2022.
- Moorberg, C.J.**, D. Ruiz Diaz, G. Kluitenberg, N. Zhang, and Y. Song. 2020. A Root Sensor for Improving Water Use Efficiency. Kansas Corn. \$15,000. May 2020 to June 2021.
- Moorberg, C.J.**, D. Ruiz Diaz, G. Kluitenberg, N. Zhang, and Y. Song. 2020. Improving Irrigation Water Use Efficiency Using Novel Root Sensors. KWRI. \$30,000. May 2020 – April 2022.
- Lollato, R. and **Moorberg, C.J.** 2018. Specialty Fertilizer Effects on Above- and Below-ground Wheat Growth, Grain Yield, and Yield Components. Agro Innovation International. \$51,680. November 2018 – December 2019.
- Moorberg, C.J.** 2018. Using the NWCA Database to Advance Ecological Site Descriptions. NRCS Soil Science Division. \$190,789 (\$133,333 award, \$57,456 in matching funds). January 2019 to December 2020.
- Moorberg, C.J.**, R.B. Neumann, and N. Zhang. 2018. Collaborative Research: EAGER SitS: Automated Imaging Platform for In Situ Sensing and Analysis of roots, Fungi, and Soil Solution Chemistry. NSF. \$299,896 (KSU: \$190,368). January 2019 to December 2020.
- Moorberg, C.J.** 2018. Quantifying the Impact of Weather Whiplash on Roots and Hyphae with an Automated Minirhizotron Camera System. NSF: Kansas EPSCoR First Awards. \$141,885. May 2018 – July 2019.
- Moorberg, C.J.** 2018. An Alternative Textbook for Agronomy 635 – Soil & Water Conservation. \$3500. June 2018 – May 2019.
- Moorberg, C.J.**, L. Biles, A. Klein, and J. Tindle. 2018. Determining if Riparian Buffer Strip Age Impacts Phosphorus Retention Potential. KWRI. \$30,000. May 2018 – April 2020.
- Lollato, R. and **Moorberg, C.J.** 2017. Specialty Fertilizer Effects on Above- and Below-ground Wheat Growth, Grain Yield, and Yield Components. Agro Innovation International. \$51,680. November 2017 – December 2018.
- Moorberg, C.J.** 2017. Evaluating Phytosiderophore Production as a Viable Screening Method for Iron Deficiency Chlorosis Tolerance in Corn. Monsanto. \$15,200. July 2017 – July 2018.

- Moorberg, C.J. 2017.** A Team-based Undergraduate Research Experiment to Develop a Rapid Screening Protocol for Iron Deficiency Chlorosis in Sorghum. Koch Industries, Inc. Research and Creative Inquiry Project. \$8,000. January 2017 – May 2017.
- Moorberg, C.J. 2016.** University Advising Committee Professional Development Grant. \$170. February 4, 2016.
- Moorberg, C.J. 2015.** AGRON 305 – Soils Laboratory Manual. K-State Open/Alternative Textbook Initiative. \$5,000. June 2015 – May 2016.

Conferences, Seminars, Lectures, and Posters

Invited Talks

- Moorberg, C.J. 2020.** Open textbooks and soil science education. North Central National Cooperative Soil Survey Regional Conference. Columbia, MO.
- Moorberg, C.J. 2019.** Investigating the pedosphere through hydrogeology and root ecology. Kansas State University Geology Department Seminar. Manhattan, KS.
- Moorberg, C.J. 2019.** Inspiring higher level thinking with stories from the Dust Bowl. Spotlight K-State. Manhattan, KS.

Oral Presentations

- Majrashi, M., A. Abour, and **C.J. Moorberg**, 2020. Effects of long-term tillage and nitrogen fertilizer rates on sorghum yield, nitrogen uptake, and utilization efficiency. SWCS 75th International Annual Conference Abstract Book. p. 41.
- Majrashi, M., A. Abour, and **C.J. Moorberg**. 2020. Tillage intensity and nitrogen rate effects on soil pH and extractable phosphorus. Kansas Natural Resources Conference. Manhattan, KS. 30-31 Jan. 2020.
- Moorberg, C.J.** 2020. Developing an open annotated bibliography to improve student engagement and combat rising textbook costs. ASA-CSSA-SSSA International Meeting. Phoenix, AZ.
- Moorberg, C.J.** 2019. Assessing the adoption and impact of an open laboratory manual. Open Education Conference. Phoenix, AZ. <https://opened19.exordo.com/programme/presentation/190>.
- Moorberg, C.J.** 2019. Assessing the impact and adoption of an open source soil science laboratory manual. 2019 ASA-CSSA-SSSA International Meeting. San Antonio, TX. <https://scisoc.confex.com/scisoc/2019am/meetingapp.cgi/Paper/121215>.
- Neumann, R.B., J.F. Eklof, M.P. Waldrop, B.M. Jones, **C.J. Moorberg**, J.D. Lundquist, J.C. Turner, J.W. McFarland, E.S. Euskirchen, C.W. Edgar, M.R. Turetsky. 2020. Thermal transport by rain into thawing permafrost landscapes. AGU Fall Meeting. San Francisco, CA.
- Ziggafoos, J. and **C.J. Moorberg**. 2019. NWCA database research. National Technical Committee for Hydric Soils Annual Meeting. Elkins, WV.
- Moorberg, C.J.**, and D.A. Crouse. 2018. A new model for open-source development of institution-specific textbooks and laboratory manuals. NACTA Journal Abstracts. Vol 62-1, NACTA. Rupert ID. p. 32.
- Jelinski, N., **C.J. Moorberg**, J. Bell, and M.D. Ransom. 2018. A survey of introductory soil science courses in the United States. NACTA Journal Abstracts. Vol 62-1, NACTA. Rupert ID. p. 50.
- Duerksen, K., **C.J. Moorberg**, N. Ryan, L. Scott, H. Wallace. 2017. Differences in phytosiderophore production of grain sorghum cultivars. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-25 Oct. 2017. Abstract 11-7. <https://scisoc.confex.com/scisoc/2017am/webprogram/Paper107225.html>
- Moorberg, C.J.**, and D.A. Crouse. 2017. The Open Soils Laboratory Manual Project. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-25 Oct. 2017. Abstract 182-3. <https://scisoc.confex.com/scisoc/2017am/webprogram/Paper108408.html>.
- Jelinski, N., **C.J. Moorberg**, M.D. Ransom, and J. Bell. 2017. A survey of introductory soil science curricula at 2- and 4-year institutions in the United States. ASA-CSSA-SSSA International Annual Meetings, Tampa, FL. 22-25 Oct. 2017. Abstract 42-1. <https://scisoc.confex.com/scisoc/2017am/webprogram/Paper107929.html>.

- Moorberg, C.J.** 2016. Student Engagement via Mobile Device Response Systems in a Large Lecture Soil Science Course: A Case Study. ASA-CSA-SSSA Annual Meetings, Phoenix, AZ. 6-9 Nov. 2016. Abstract 223-1. <https://scisoc.confex.com/scisoc/2016am/webprogram/Paper101237.html>.
- Neumann, R.B., **C. Moorberg**, A. Wong. M.P. Waldrop, and M.R. Turetsky. 2015. Seasonal Oxygen Dynamics in a Thermokarst Bog in Interior Alaska: Implications for Rates of Methane Oxidation. AGU Fall Meeting, San Francisco, CA. 12-16 Dec. 2015. Abstract B44B-02. <https://agu.confex.com/agu/fm15/webprogram/Paper73383.html>.
- Moorberg, C.J.**, M.J. Vepraskas, and C.P. Niewoehner. 2013. Water quality impacts of wetland restoration: What's the source of all of that phosphorus? ASA-CSA-SSSA Annual Meetings, Tampa, FL. 3-6 Nov. 2013. Paper 79937. <https://scisoc.confex.com/crops/2013am/webprogram/Paper79937.html>.
- Moorberg, C.J.**, and M.J. Vepraskas. 2013. Bald cypress root response to water table fluctuation: A source of soil reduction microsites. ASA-CSA-SSSA Annual Meetings, Tampa, FL. 3-6 Nov. 2013. Abstract 157-14. <https://scisoc.confex.com/crops/2013am/webprogram/Paper80762.html>.

Posters

- Hamill, B. and **C.J. Moorberg**. 2020. Using gamification to incentivize student preparation for a laboratory course. ASA-CSSA-SSSA International Meeting. Phoenix, AZ.
- Moorberg, C.J.** 2020. Annotated bibliographies and open textbooks in agriculture: A case study. NACTA Journals Abstracts. Vol. 26(1). p. 167.
- Moorberg, C.J.** 2020. Developing an open annotated bibliography to improve student engagement and combat rising textbook costs. ASA-CSSA-SSSA International Meeting. Phoenix, AZ.
- Moorberg, C.J.** 2020. Development and Use of an annotated bibliography as an open textbook for soil and water conservation. SWCS 75th International Annual Conference Abstract Book. p. 184.
- Moorberg, C.J.** 2020. Development of Soil and Water Conservation: An Annotated Bibliography. Kansas Natural Resources Conference. Manhattan, KS.
- Moorberg, C.J.** and A. Ahlers. 2020b. An experimental test to inform cattail management at Cheyenne Bottoms Wildlife Area. Kansas Natural Resources Conference. Manhattan, KS.
- Pereira Pinto, J.G.C., **C.J. Moorberg**, and Y. Song. 2020. Benchmarking the RhizoPi automated minirhizotron camera system. ASA-CSSA-SSSA International Meeting. Phoenix, AZ. Accepted.
- Song, Y., **C.J. Moorberg**, and J.G.C. Pereira Pinto. 2020. Design and Capabilities of an Automated Minirhizotron Camera System. MAPS Conference. Lawrence, KS.
- Ziggafoos, J. and **C.J. Moorberg**. 2020. Using National Wetland Condition Assessment data for hydric soil research and ecological site description development. Kansas Natural Resources Conference. Manhattan, KS.
- Moorberg, C.J.** 2019. Developing an open annotated bibliography: student engagement and evaluation of source credibility. Open Education Conference. Phoenix, AZ. <https://opened19.exordo.com/programme/presentation/101>.
- Moorberg, C.J.** 2019. Development of a soil and water conservation annotated bibliography and its adoption as an open textbook. ASA-CSSA-SSSA International Meeting. San Antonio, TX. Accepted. <https://scisoc.confex.com/scisoc/2019am/meetingapp.cgi/Paper/121216>.
- Moorberg, C.J.** 2019. Professional Certification and Licensing for Soil Science Faculty. SSSA International Soils Meeting. San Diego, CA. <https://scisoc.confex.com/scisoc/2019sssa/meetingapp.cgi/Paper/116729>.
- Ziggafoos, J. and **C.J. Moorberg**. 2019. Exploring National Wetland Condition Assessment Soils Data: General Trends and Applications for Ecological Site Descriptions. National Cooperative Soil Survey National Conference. Narragansett, RI. <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/partnership/ncss/?cid=nrcseprd1465701>.
- Moorberg, C.J.**, and D.A. Crouse. 2018. A new model for open-source development of institution-specific textbooks and laboratory manuals. NACTA Journal Abstracts. Vol 62-1, NACTA. Rupert ID. p. 32.

- Wallace, H. and **C.J. Moorberg**. 2018. Evaluating phytosiderophore production as a screening method for iron deficiency chlorosis tolerance in Corn. Kansas State University Gamma Sigma Delta Undergraduate Research Showcase. 27 Apr. 2018.
- Moorberg, C.J.**, J.C. Turner, A. Wong, M.P. Waldrop, E. Eukirchen, C. Edgar, M.R. Turetsky, and R.B. Neumann. 2017. Rain promotes methane production and oxidation in a thermokarst bog in interior Alaska. Department of Energy 2017 Environmental Systems Science Principle Investigators Meeting Abstract Book. p. 36.
- Moorberg, C.J.**, and D.A. Crouse. 2017. Views of soil science course students on textbook cost and format. In: NACTA Journal Abstracts. Vol. 61-1, NACTA. Rupert, ID. p. 295.
- Moorberg, C.J.** 2017. Experimental learning via team-based undergraduate agronomy research. In: NACTA Journal Abstracts. Vol. 61-1, NACTA. Rupert, ID. p. 295.
- Neumann, R.B., **C.J. Moorberg**, J.C. Turner, A. Wong, M.P. Waldrop, E. Euskirchen, C. Edgar, M.R. Turetsky. 2017. Environmental change and the conversion of permanently frozen ground to wetlands. AGU Fall Meeting, San Francisco, CA. 11-15 Dec. 2017. Paper 242289. <https://agu.confex.com/agu/fm17/preliminaryview.cgi/Paper242289.html>.
- Neumann, R.B., **C.J. Moorberg**, J.C. Turner, A. Wong, M.P. Waldrop, E. Euskirchen, C. Edgar, M.R. Turetsky. 2017. Rain increases methane production and methane oxidation in a boreal thermokarst bog. AGU Fall Meeting, San Francisco, CA. 11-15 Dec. 2017. Paper 242013. <https://agu.confex.com/agu/fm17/preliminaryview.cgi/Paper242013.html>.
- Neumann, R.B., **C.J. Moorberg**, J.C. Turner, A. Wong, M.P. Waldrop, E. Eukirchen, C. Edgar, M.R. Turetsky. 2017. Rain increases methane production and methane oxidation in a boreal thermokarst bog. 2017 Multi-omics for Microbiomes – EMSL Integration Conference, Pasco, WA. 1-3 Aug. 2017.
- Sindt, M.R., **C.J. Moorberg**, and D. Ruiz Diaz. 2016. Impacts of Phosphorus Application Methods on Rooting Dynamics in Corn in a Long-Term Strip Tillage Trial. ASA-CSSA-SSSA 2011 International Annual Meetings, Phoenix, AZ. 6-9 Nov. 2016. Poster 125-517. <https://scisoc.confex.com/crops/2016am/webprogram/Paper101104.html>.
- Moorberg, C.J.**, and R.B. Neumann. 2015. Rhizosphere methane oxidation in thermokarst bogs in the interior of Alaska. ASA, CSSA, and SSSA Annual Meetings, Minneapolis, MN, 15-18, 2015. Poster 50-1. <https://scisoc.confex.com/crops/2015am/webprogram/Paper95462.html>.
- Moorberg, C.J.**, and M.J. Vepraskas. 2011. Phosphorus mobilization from an agricultural Histosol used for wetland restoration. ASA-CSSA-SSSA 2011 International Annual Meetings, San Antonio, TX. 16-19 Oct. 2011. Poster 156-12. <https://scisoc.confex.com/crops/2011am/webprogram/Paper66228.html>.
- Moorberg, C.J.**, M.J. Vepraskas, and C.P. Niewoehner. 2009. Phosphorus mobilization in the rhizospheres of bald cypress grown in wetland soils. ASA-CSSA-SSSA 2009 International Annual Meetings. Pittsburgh, PA. 1-5 Nov. 2009. Paper 56934. <https://scisoc.confex.com/crops/2009am/webprogram/Paper53964.html>.

Selected Honors and Awards

- Soil Science Society of America Early Career Award, 2021
- Association of Public Land-Grant Universities Innovative Teaching Award, 2020
- NACTA Educator Award, 2020
- *Natural Sciences Education* Outstanding Associate Editor Award, 2019
- Faculty Recognition Award, K-State Mortar Board, Spring 2019
- Faculty of the Semester, K-State Ag Student Council, Fall 2018
- OER Research Fellow, The Open Education Group, 2018
- Honorary Member, Order of Omega – K-State Chapter, 2018
- *Natural Sciences Education* Outstanding Reviewer, 2017
- K-State Center for the Advancement of Digital Scholarship Open Access All Star, 2017
- Soil and Water Conservation Society Outstanding Service Award, 2017

- Soil Science Society of America 2015 Emil Truog Soil Science Award for a Ph.D. dissertation that made an outstanding contribution to soil science
- Gamma Sigma Delta member

Professional Affiliations and Honor Societies

- American Society of Agronomy, ASA
- Gamma Sigma Delta, ΓΣΔ
- North American Colleges and Teachers of Agriculture, NACTA
- Soil Science Society of America, SSSA
- Soil and Water Conservation Society, SWCS
- Society of Wetland Scientists, SWS

Service

K-State Department of Agronomy Service

- Instructor and Academic Coordinator Search Committee, member, 2019
- Undergraduate Course and Curriculum Committee - member, 2015 – present
- Academic Assessment Coordinator, 2016 – present
- Undergraduate Research Committee - member, 2015 – present
- Awards Committee, SWCS Liaison, 2017 – present
- Roscoe Ellis Soil Science Lectureship Committee, 2018 – present
- Wheat State Agronomy Club Advisor, 2018 – present
- Land Judging Career Development Events Committee, 2018 – present
- Social Committee – Purple Coat Reception, 2018 – present
- Soil Judging Coach, 2017 - present

K-State College of Agriculture Service

- Academic Standards Committee – co-chair, 2017 – present; member, 2016 – present
- Department of Agronomy Head Search Committee, member, 2019 – 2020
- Assistant Dean for Educational Programs Search Committee, member, 2020

Kansas State University Service

- Faculty Senate, senator, 2020 – present
- Natural Resources and Environmental Science Board, member, 2017 – present
- Environmental Science Bachelors Program Formation Committee, 2020 - present
- K-State Chapter of Triangle Fraternity, alumni and faculty advisor 2015-2019

Professional Society Leadership and Service

- SSSA Soils Certification Board; vice chair, 2021 – present; member, 2017 – present
- SSSA Wetland Soils Division, chair elect, 2021 – present
- SSSA 2019 San Diego Meeting Student and Early Career Task Force, member, 2017
- ASA Undergraduate Education Community – 2016 vice-leader, 2017 leader
- SSSA Graduate Student Committee - faculty representative, 2015 – 2016
- SWCS Professional Development Committee, chair 2015 – 2017

Government Service

- National Technical Committee for Hydric Soils – member and university representative, 2017 – present
- North Central National Cooperative Soil Survey Hydric Soils Committee, co-chair, 2019 – present
- USDA-NRCS Soils 2026 Steering Committee, member, 2019 – present

Editorial Appointments

- *Natural Sciences Education*, associate editor, 2019 – present
- *Natural Sciences Education*, special section guest editor, 2020-2021, “Natural Sciences Education in a COVID-19 World”

Journal Peer Reviews since January 2018

Agricultural and Environmental Letters (1), *Canadian Journal of Soil Science (1)*, *Journal of Geophysical Research - Biogeosciences (1)*, *Natural Sciences Education (3)*, *Pedosphere (1)*, *Soil Science Society of America Journal (4)*

Grant Proposal Peer Reviews Since January 2018

NSF Excellence in Research Proposal, 2020

Kentucky Agriculture Experiment Station Hatch Grant, 2019

NSF Division of Environmental Biology Career Proposal, 2019

NSF Division of Environmental Biology Career Proposal, 2018

Organized Lectures, Sessions, and Workshops Since 2018

Daigh, A.J., A.J. De Joia, and **C.J. Moorberg**. 2019. Special Session Symposium – Certified Professional Soil Scientist (CPSS) Accelerator. SSSA International Soils Meeting. San Diego, CA