Peer-reviewed Publications – NCERA3 Committee Contributions

Ferhatoglu, C., B.A. Miller.  2022.  Choosing feature selection methods for spatial modeling of soil fertility properties at the field scale.   SIGSpATIAL ’22: Proc. 30th Intl. Conf. Adv. Geog. Info Systems.  <https://doi.org/10.1145/3557915.3565531> .

McDanel, J.J., N.A. Meghani, B.A. Miller, and P.L. Moore.  2022. Harmonized landform regions in the glaciated Central Lowlands, USA>. J. Maps 18. <https://doi.org/10.1080/17445647.2022.2090866> .

Poffenbarger, H., S. Archontoulis, C.L. Burras, G. Danalatos, P. Dixon, A. Russell, J. Six, E. Takle, J. Veenstra and M. Castellano.  2022.  A large subsoil carbon sink in the United States Corn Belt.   Earth and Space /science Open Archive (ESSOAr) 37. <https://doi.org/10.1002/essoar.10512187.2>

Streeter, M.T., J. Vogelgesang, K.E. Schilling and C.L. Burras. 2022.  Use of high-resolution ground conductivity measurements for denitrifying conservation practice placement.   Environmental Monitoring Assessment 194:784. <https://doi.org/10.1007/s10661-022-10441-w>

Arnalds, A., S. Thorlaksdottir, B.K. Slater, and F. Yikii. (2022). Knowledge and Progress:Building the Bridges to Empower Community Action. In Dale, A., Kurnow, J. Campbell, A, and Seigel, M. (2022) (editors) Building Global Sustainability Through Local Self-Reliance: Lessons from Landcare. ACIAR Monograph 219. Australian Centre for International Agricultural Research, Canberra.

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, 114778, <https://doi.org/10.1016/j.geoderma.2020.114778>.

Searle, R., McBratney, A., Grundy, M., Kidd, D., Malone, B., Arrouays, D., Stockman, U., Zund, P., Wilson, P., Wilford, J., Van Gool, D., Triantafilis, J., Thomas, M., Stower, L., Slater, B., Robinson, B., Ringrose-Voase, A., Padarian, J., Payne, J., Orton, T., Odgers, N., O’Brien, L., Minasny, B., Bennett, J.M., Liddicoat, C., Jones, E., Holmes, K., Harms, B., Gray, J., Bui, E., Andrews, K. (2021). Digital soil mapping and assessment for Australia and beyond: A propitious future. Geoderma Regional, 24, e00359,

https://doi.org/10.1016/j.geodrs.2021.e00359.

(<http://www.sciencedirect.com/science/article/pii/S2352009421000043>)

Kidd, D., Searle, R., Grundy, M., McBratney, A., Robinson, M., O'Brien, L., Zund, P., Arrouays, D., Thomas, M., Padarian, J., Jones, E., Bennett, J.,M., Minasny, B., Holmes, K., Malone, B.P., Liddicoat, C., Meier, E.A., Stockmann, U., Wilson, P., Wilford, J., Payne, J., Ringrose-Voase, A., Slater, B., Odgers, N., Gray, J., van Gool, D., Andrews, K., Harms, B., Stower, L., Triantafilis, J. (2020). Operationalising digital soil mapping – Lessons from Australia, Geoderma Regional,

23, e00335, https://doi.org/10.1016/j.geodrs.2020.e00335.

(<http://www.sciencedirect.com/science/article/pii/S2352009420300845>)

2023- Young, R., Turk, J., Anderson, A., Bhandari, A., Clark, K., Davis, M., Dere, A., Jelinski, N., Moorberg, C., **Osterloh, K**., Presley, D. “Jumble judging: Cognitive and affective outcomes of intercollegiate collaboration at a soil judging competition” *Natural Sciences Education*

Ramson, J., Leon-Salas, W. D., Brecheisen, Z., Foster, E., Johnston, C. T., Schulze, D. G., … Postigo, M. (2021). A self-powered, real-time, LoRaWAN IoT-based soil health monitoring system. *IEEE Internet of Things Journal*, 12. <https://doi.org/10.1109/JIOT.2021.3056586>

Minai, J. O., Libohova, Z., & Schulze, D. G. (2021). Spatial Prediction of Soil Properties for the Busia Area, Kenya Using Legacy Soil Data. *Geoderma Regional*, *25*, e00366. [https://doi.org/https://doi.org/10.1016/j.geodrs.2021.e00366](https://doi.org/https%3A//doi.org/10.1016/j.geodrs.2021.e00366)

Schulze, D. G., Rahmani, S. R., Minai, J. O., Johnston, C. T., Fulk-Bringman, S. S., Scott, J., … Mashtare, Jr, M. L. (2021). Virtualizing soil science field trips. *Natural Sciences Education*, *50*(1), e20046.

Rahmani, S. R., Ackerson, J. P., Schulze, D. G., Adhikari, K., & Libohova, Z. (2022). Digital Mapping of Soil Organic Matter and Cation Exchange Capacity in a Low Relief Landscape Using LiDAR Data. *Agronomy*, *12*, 1338. <https://doi.org/10.3390/agronomy12061338>

Minai, J. O., Schulze, D. G., & Libohova, Z. (2022). Renewal of Archival Legacy Soil Data: A Case Study of the Busia Area, Kenya. *Frontiers in Soil Science*, *1*, 765248. <https://doi.org/10.3389/fsoil.2021.765248>

Turk, J.K., & Graham, R.C. (2022). Microbial activity and temperature change affect growth of vesicular pores. Geoderma, 115957. <https://doi.org/10.1016/j.geoderma.2022.115957>

Joeckel, R.M., Korus, J.T., Turk, J.K., Arps, C.C., Arps, N.V. Howards, L.M. (2022). Strange Stones of Skull Creek: Basalt Glacial Erratics and Omars in Eastern Nebraska. Great Plains Research, 1-20. <https://doi.org/10.1353/gpr.2022.0000>

Airori, A. J., Baker, T. J., & Turk, J. K. (2021). The impact of sampling methodology on soil bulk density measurement by the clod method. Communications in Soil Science and Plant Analysis, 1-10. <https://doi.org/10.1080/00103624.2021.1993887>

Owen, R. K., Anderson, A., Bhandari, A., Clark, K., Davis, M., Dere, A., Jelinski, N., Moorberg, C., Osterloh, K., Presley, D., Turk, J., & Young, R. (2021). Evaluating student attitudes and learning at remote collegiate soil judging events. *Natural Sciences Education*, 50(2), e20065. [https://doi.org/10.1002/nse2.20065](https://doi.org/https%3A//doi.org/10.1002/nse2.20065)

Rabenhorst, M. C., Drohan, P. J., Galbraith, J. M., Moorberg, C., Spokas, L., Stolt, M. H., Thompson, J. A., Turk, J., Vasilas, B. L., & Vaughan, K. L. (2021). Manganese-coated IRIS to document reducing soil conditions. *Soil Science Society of America Journal*, 85(6), 2201-2209. <https://doi.org/10.1002/saj2.20301>

Turk, J. K., & Young, R. A. (2021). A novel approach for teaching soil texture estimation: replacing standard protocols with directed self-calibration. *Journal of Geoscience Education*, 1-16. <https://doi.org/10.1080/10899995.2021.1891402>

Wade, J., Maltais-Landry, G., Lucas, D. E., Bongiorno, G., Bowles, T. M., Calderón, F. J., Culman, S. W., Daughtridge, R., Ernakovich, J. G., Fonte, S. J., Giang, D., Herman, B. L., Guan, L., Jastrow, J. D., Loh, B. H. H., Kelly, C., Mann, M. E., Matamala, R., Miernicki, E. A., ... Margenot, A. J. (2020). Assessing the sensitivity and repeatability of permanganate oxidizable carbon as a soil health metric: An interlab comparison across soils. Geoderma, 366, [114235]. <https://doi.org/10.1016/j.geoderma.2020.114235>

Acree, A., Weindorf, D. C., Galbraith, J. M., Jelinski, N. A., & Paulette, L. (2020). Characterization of Gelolls in northern Alaska, USA. Soil Science Society of America Journal, 84(3), 818-832. <https://doi.org/10.1002/saj2.20064>

Nicklay, J. A., Cadieux, K. V., Rogers, M. A., Jelinski, N. A., LaBine, K., & Small, G. E. (2020). Facilitating Spaces of Urban Agroecology: A Learning Framework for Community-University Partnerships. Frontiers in Sustainable Food Systems, 4, [143]. <https://doi.org/10.3389/fsufs.2020.00143>

Jelinski, N. A., Perrone, S. V., Blair, H. K., & Fabian, M. L. (2020). Growing hearts and minds: Linking landscapes and lifescapes in a soils field course. Natural Sciences Education, 49(1), [e20018]. <https://doi.org/10.1002/nse2.20018>

Quintus, S., Huebert, J., Day, S., Lincoln, N., Yoo, K., Lee, T., Filimoehala, D., & Autufuga, D. (2020). Tempo and trajectory of the built landscape on Ta'u island, Manu'a group, American Samoa: integrating extensive radiocarbon dating with joint posterior modeling. *Radiocarbon*, *62*(5), 1317-1337. <https://doi.org/10.1017/RDC.2020.60>

Sirota, J. I., Kolka, R. K., Sebestyen, S. D., & Nater, E. A. (2020). Mercury dynamics in the pore water of peat columns during experimental freezing and thawing. *Journal of Environmental Quality*, *49*(2), 404-416. <https://doi.org/10.1002/jeq2.20046>

Xia, Y., McSweeney, K., & Wander, M. M. (2022). Digital Mapping of Agricultural Soil Organic Carbon Using Soil Forming Factors: A Review of Current Efforts at the Regional and National Scales. *Frontiers in Soil Science*, *2*, 890437