

APPENDIX: Referred Publications, Journal articles and book chapters

SAES-224 Multistate Research Activity Accomplishments Report

Project Number & Title NCERA3 Soil & Landscape Assessment, Function & Interpretation

Period Covered: October 2017 - September 2018

Date of Report: January 7, 2019

Annual Meeting Date: October 4, 2018, University of Illinois Turf Grass Research Center

Adhikari, K. & A.E. Hartemink 2017 Soil organic carbon increases under intensive agriculture in the Central Sands, Wisconsin, USA. *Geoderma Regional* 10: 115-125

Arrouays, D., J.G.B. Leenaars, A.C. Richer-De-Forges, K. Adhikari, C. Ballabio, M. Greve, M. Grundy, E. Guerro, J. Hempel, T. Hengl, G. Heuvelink, N. Batjes, E. Carvalho, A.E. Hartemink et al. 2017 Soil legacy data rescue via GlobalSoilMap and other international and national initiatives. *GeoResJ* 14: 1-19

Arrouays, D., P. Lagacherie & A.E. Hartemink 2017 Digital soil mapping across the globe. *Geoderma Regional* 9: 1-4

Arrouays, D., B. Minasny, A.B. McBratney, M. Grundy, N. McKenzie, J. Thompson, A. Gimona, S.Y. Hong, S. Smith, A.E. Hartemink et al. 2017 GlobalSoilMap for soil organic carbon mapping and as a basis for global modeling. In: Proceedings of the global symposium on soil organic carbon. *FAO, Rome*. pp27-30

Arriaga, F.J., B. Lowery, D.J. Reinert and K. McSweeney. 2016. Cone penetrometers as a tool for distinguishing soil profiles and mapping erosion. p. 401-410. In A.E. Hartemink and B. Minasny (ed.) *Digital Soil Morphometrics*. Springer Dordrecht, The Netherlands.

Arrouays, D., A.C. Richer-De-Forges, A.B. McBratney, A.E. Hartemink, et al. 2018 The GlobalSoilMap project: past, present, future, and national examples from France. *Bulletin of the Soil Institute (Dokuchaev)* 95: 3-23

Bockheim, J.G & A.E. Hartemink 2017 *The Soils of Wisconsin*. Springer, Dordrecht. 393 pp. ISBN 978-3-319-52144-2

Bonfatti, B., A.E. Hartemink, T. Vanwalleghem, B. Minasny & E. Giasson 2018 A mechanistic model to predict soil thickness in a valley area of Rio Grande do Sul, Brazil. *Geoderma* 309: 17-31

Brevik, E.C., A. Baumgarten, C. Calzolari, A. Jordan, C. Kabala, B.A. Miller and P. Pereira. 2016. Editorial: Historical perspectives and future needs in soil mapping, classification and pedologic modeling. *Geoderma* 264:253-255.

Brevik, E.C., C. Calzolari, B.A. Miller, P. Pereira, C. Kabala, A. Baumgarten, and A. Jordán. Soil mapping, classification, and pedologic modeling: History and future directions. *Geoderma* 264:256-274. doi: 10.1016/j.geoderma.2015.05.017.

Brevik, E.C., J.A. Homburg, B.A. Miller, T.E. Fenton, J.A. Doolittle, and S.J. Indorante. 2016. Selected highlights in American soil science history from the 1980s to the mid-2010s. *Catena* 146:128-146.

Burras, C.L. 2016. Soils and their effective management – a pedologist’s perspective, Part 1: General ideas. *Soil Fertility and Nutrient Management Shortcourse Notebook*. 4 pages.

Burras, C.L. 2016. Soils and their effective management – a pedologist’s perspective, Part 2: Iowa and the soils of Iowa. *Soil Fertility and Nutrient Management Shortcourse Notebook*. 6 pages.

Burgos Hernández, T.D., B.K. Slater, R. Tirado-Corbalá, and J.M. Shaffer (2018). Assessment of long-term tillage practices on physical properties of two Ohio soils. *Soil and Tillage Research* 186:270-279. DOI: 10.1016/j.still.2018.11.004.

Chendev, Y.G., J.A. Hubbart, E.A. Terekhin, A.R. Lupo, T.J. Sauer and C.L. Burras. 2016. Recent afforestation in the Iowa River and Vorskla River Basins: A comparative Trends Analysis. *Forests* 7:278 doi:[10.3390/f7110278](https://doi.org/10.3390/f7110278) 21 p. (available at <http://www.mdpi.com/1999-4907/7/11/278/htm> , reviewed November 20, 2016).

Darmody, R., and K. McSweeney. 2017. Reclamation of prime farmland: A retrospective 40 years after reclamation. P. 307-314. *In* Z. Hu (ed.) *Land Reclamation in ecologically fragile areas*. CRC Press. Boca Raton, FL.

Fisher, B.A., Rendahl, A.K., Aufdenkampe, A.K. and Yoo, K., 2017. Quantifying weathering on variable rocks, an extension of geochemical mass balance: Critical zone and landscape evolution. *Earth Surface Processes and Landforms*, 42(14), pp.2457-2468.

Grauer-Gray, J. & A.E. Hartemink 2018 Raster sampling of soil profiles. *Geoderma* 318: 99-108
H, A.E. 2017 Reviewing papers. *Geoderma Regional* 10: A1-2
Hartemink, A.E., A. Gennadiyev, J.G. Bockheim & N. Bero 2017 Short-range variation in a Wisconsin soilscape. *Eurasian Soil Science* 50: 198-209

Hu, Z., F. Shao, and K. McSweeney. 2017. Reclaiming subsided land with Yellow River sediments: Evaluation of soil-sediment columns. *Geoderma* 307: 210-219.

- Jelinski, N.A., Broz, K., Jonkers, W., Ma, L.-J., Kistler, H.C.K. 2017. Effector Gene Suites in Some Soil Isolates of *Fusarium oxysporum* Are not Sufficient Predictors of Vascular Wilt in Tomato. *Phytopathology* **107(7):842-851**. doi: 10.1094/PHYTO-12-16-0437-R
- Jelinski, N.A., K. Yoo and J. Klaminder. 2017. Utilizing a suite of isotopic and elemental tracers to constrain cryoturbation rates and patterns in a non-sorted circle. *Permafrost and Periglacial Processes* **28:634-648**. 10.1002/ppp.1944
- Joeckel, R.M. and L.M. Howard. 2018. The ups and downs of Nebraska: recognizing gilgai in the state. *Great Plains Res.* 21:51-64.
- Kirillova, N.P., J. Grauer-Gray, A.E. Hartemink, T.M. Sileova, Z.S. Artemyeva & E.K. Burova 2018 New perspectives to use Munsell color charts with electronic devices. *Computers and Electronics in Agriculture* 155: 378-385
- Massawe, B. H. J., S.K. Subburayalu, A.K. Kaaya, L. Winowiecki and B.K. Slater (2018). Mapping numerically classified soil taxa in Kilombero Valley, Tanzania using machine learning. *Geoderma* 311:143-148. DOI 10.1016/j.geoderma.2016.11.020.
- Massawe, B., B.K. Slater, S. Subburayalu, A. Kaya and L. Winowiecki (2016). Updating legacy soil maps for climate resilient agriculture: A case of Kilombero Valley, Tanzania. In: *Climate Change and Multi-Dimensional Sustainability in African Agriculture: Climate Change and Sustainability in Agriculture*. New York, Springer. pp 345-364.
- Massawe, B.H.J., L. Winowiecki, J.L. Meliyo, B. Msanya, D. Kimaro, J. Decker, H. Gulink, C. Lyamchai, G. Sayula, E. Msoka, G. Brush, and N.A. Jelinski*. 2017. Assessing drivers of soil properties and classification in the West Usambara mountains, Tanzania. *Geoderma Regional* **11C:141-154**. <https://doi.org/10.1016/j.geodrs.2017.10.002>
- Maxbauer, D.P., Feinberg, J.M., Fox, D.L. and Nater, E.A., 2017. Response of pedogenic magnetite to changing vegetation in soils developed under uniform climate, topography, and parent material. *Scientific reports*, 7(1), p.17575.
- Meitan, X., Z. Hu., F. Shao, and K. McSweeney. 2017. Technique of reclaiming subsided land with Yellow River sediments in the form of spaced strips. *J. China Coal Soc.* 42 (3):557-566.
- Miller, B.A., S. Koszinski, W. Hierold, H. Rogasik, B. Schröder, K. Van Oost, M. Wehrhan, and M. Sommer. Towards mapping soil carbon landscapes: issues of sampling scale and transferability. *Soil and Tillage Research* 156:194-208. doi: 10.1016/j.still.2015.07.004.
- Miller, B.A. and R.J. Schaetzl. History of soil geography in the context of scale. *Geoderma* 264:284-300. doi: 10.1016/j.geoderma.2015.08.041.
- Nzeyimana, I., A.E. Hartemink, C. Ritsema, L. Stroosnijder, E.H. Lwanga & V. Giessen 2017 Mulching as a strategy to improve soil properties and reduce soil erodibility in coffee farming systems of Rwanda. *Catena* 149: 43-51

Riggs, C.E., Kolka, R.K., Nater, E.A., Witt, E.L., Wickman, T.R., Woodruff, L.G. and Butcher, J.T., 2017. Yellow Perch (*Perca flavescens*) Mercury Unaffected by Wildland Fires in Northern Minnesota. *Journal of environmental quality*, 46(3), pp.623-631.

Schaetzl, R.J. and B.A. Miller. 2016. Use of soil maps and surveys to interpret soil-landform assemblages and soil-landscape evolution. Ch. 15. p. 251-264. In: J.A. Zinck, G. Metternich, G. Bocco, H.F. Del Valle (Eds.) *Geopedology – An integration of geomorphology and pedology for soil and landscape studies*.

Schulze, D. G., N. C. Landin, P. R. Owens, J. J. Camberato. 2017. Evidence for a naturally occurring post-glacial acid sulfate weathering event in northwestern Indiana, USA. *Geoderma* 308:341-349.

Schulze, D. G. 2017. Soils of Humid Mid-Latitude Landscapes. In: D. Richardson (ed.), *International Encyclopedia of Geography: People, the Earth, Environment, and Technology*. John Wiley & Sons, Ltd. DOI: 10.1002/9781118786352.wbieg0993

Silva, S. H. G., A.E. Hartemink, A.F.D.S. Teixeira, A.V. Inda, L.R.G. Guilherme, & N. Curi 2018 Soil weathering analysis using a portable X-ray fluorescence (PXRF) spectrometer in and Inceptisol from the Brazilian Cerrado. *Applied Clay Science* 162: 27-37

Slater, B.K. (2018). Soil health assessment and inventory: Indices and databases. In Don Reicosky (editor). *Managing soil health for sustainable agriculture Volume 2*. Chapter: 1 p1-22. Burleigh Dodds Science Publishing. DOI: 10.19103/AS.2017.0033.17

Sonmez N. K. and Slater B.K (2016) Measuring intensity of tillage and plant residue cover using remote sensing. *European Journal of Remote Sensing*. 49:121-135.

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Van Meter, K.J., N.B. Basu, J.J. Veenstra and C.L. Burras. 2016. The nitrogen legacy: Emerging evidence of nitrogen accumulation in anthropogenic landscapes. *Env. Res. Letters* 11: 1-12. DOI:10.1088/1748-9326/11/3/035014. (available at <http://iopscience.iop.org/article/10.1088/1748-9326/11/3/035014> , reviewed March 21, 2016).

Wang, Q.B., A.E. Hartemink, Z. Jianga, N. Jina, Z. Sun 2017 Digital soil morphometrics of krotovinas in a deep Alfisol derived from loess in Shenyang, China. *Geoderma* 301-11-18

West, L., M. Singer & A.E. Hartemink (EDS) 2017 *The soils of the USA*. Springer, Dordrecht. 394 pp. ISBN 978-3-319-41870-4

Zhang, Y. & A.E. Hartemink 2018 Digital mapping of a soil profile. *European Journal of Soil Science* doi:10.1111/ejss.12699

Zhang, Y. & A.E. Hartemink 2017 Sampling designs for soil organic carbon stock assessment of

soil profiles. *Geoderma* 307: 220-230