

MATTHEW C. RICKER

Professional Preparation

University of Mary Washington	Geology	B.S.	2006
University of Rhode Island	Environmental Sciences	M.S.	2010
Auburn University	Forestry	Ph.D.	2014

Appointments

8/2018-Present:	Assistant Professor of Pedology and Land Use, Dept. of Crop & Soil Sciences, North Carolina State Univ.
8/2014-8/2018:	Assistant Professor of Soil Science, Dept. of Environmental, Geographical, and Geological Sciences, Bloomsburg Univ. of Pennsylvania
1/2014-8/2014:	Postdoctoral Fellow, Dept. of Forestry, Auburn Univ.

Relevant Selected Publications

1. Caudle, C., D. Osmond, J.L. Heitman, M. Ricker, G. Miller, and S. Wills. 2020. Comparison of soil health metrics for the Cecil soil series in the North Carolina Piedmont. *Soil Sci. Soc. Am. J.*
2. Ricker, M.C., G.D. Blosser, W.H. Conner, and B.G. Lockaby. 2019. Wood biomass and carbon pools within a floodplain forest of the Congaree River, South Carolina, USA. *Wetlands* (DOI:10.1007/s13157-019-01150-1).
3. Pierfelice, K.N., B.G. Lockaby, K.W. Krauss, W.H. Conner, G.B. Noe, and M.C. Ricker. 2017. Salinity influences on above- and belowground net primary productivity in tidal wetlands. *Journal of Hydrologic Engineering* DOI:10.1061/(ASCE)HE.1943-5584.0001223.
4. Lockaby, B.G., N. Noori, W. Morse, W. Zipperer, L. Kalin, R.M. Governo, R. Sawant, and M.C. Ricker. 2016. Climatic, ecological, and socioeconomic factors associated with West Nile virus incidence in Atlanta, Georgia, U.S.A. *Journal of Vector Ecology* 41:232-243.
5. Odhiambo, B.K., M.C. Ricker, L.M. Le Blanc, and K.A. Moxey. 2016. Effects of forested floodplain soil properties on phosphorous concentrations in two Chesapeake Bay sub-watersheds, Virginia, USA. *Environmental Science and Pollution Research* 23:16056-16066.
6. Ricker, M.C., B.G. Lockaby, G.D. Blosser, and W.H. Conner. 2016. Rapid wood decay and nutrient mineralization in an old-growth bottomland forest. *Biogeochemistry* 127:323-338.
7. Brodbeck, A.B., J. LeCompte, A.L. Meder, M.C. Ricker, M. Wedge, H. Schurman, and C.J. Anderson. 2015. Evaluating a campus nitrogen-budget for Auburn University, Alabama, USA. *Urban Ecosystems* 18:1187-1211.
8. Ricker, M.C. and B.G. Lockaby. 2015. Soil organic carbon stocks in a large eutrophic floodplain forest of the Atlantic Coastal Plain, USA. *Wetlands* 35:291-301.
9. Ricker, M.C. and B.G. Lockaby. 2014. Soil biogeochemical processes across a lateral toposequence in an old-growth floodplain forest. *Soil Science Society of America Journal* 78:2100-2111. Manuscript also featured in *CSA News Magazine* 2015 60:13-17.
10. Ricker, M.C., M.H. Stolt, and M.S. Zavada. 2014. Comparison of soil organic carbon dynamics in forested riparian wetlands and adjacent uplands. *Soil Science Society of America Journal* 78:1817-1827.

11. Clark, E.V., B.K. Odhiambo, and M.C. Ricker. 2014. Comparative analysis of metal concentrations and sediment chronologies from two Virginia reservoirs, USA: Lakes Moomaw and Pelham. *Water, Air, & Soil Pollution* 225:1860.
12. Ricker, M.C., M.H. Stolt, S.W. Donohue, G.A. Blazejewski, and M.S. Zavada. 2013. Soil organic carbon pools in riparian landscapes of southern New England. *Soil Science Society of America Journal* 77:1070-1079.
13. Ricker, M.C., S.W. Donohue, M.H. Stolt, and M.S. Zavada. 2012. Development and application of multi-proxy indices of land use change for riparian soils in southern New England, USA. *Ecological Applications* 22:487-501.
14. Odhiambo, B.K. and M.C. Ricker. 2012. Spatial and isotopic analysis of watershed soil loss and sediment accumulation rates in Lake Anna, Virginia, USA. *Environmental Earth Sciences* 65:373-384.
15. Ricker, M.C., B.K. Odhiambo, and J.M. Church. 2008. Spatial analysis of soil erosion and sediment fluxes: a paired watershed study of two Rappahannock River tributaries, Stafford County, Virginia. *Environmental Management* 41:766-778.

Synergistic Activities:

- 2018 recipient of the Bloomsburg University Provost's Award for Excellence in Scholarly Research
- 2017 recipient of the Bloomsburg University College of Science and Technology Distinguished Faculty Award for Scholarly Activity
- 2015-Present: Coach for Collegiate Soil Judging, 5 regional and 2 national competitions
- 2014-2018: Taught undergraduate/graduate courses in soil classification, geomorphology, soil resources management, wetlands ecology, and environmental science
- Manuscript peer review for 19 international journals (not listed)
- Author of 51 conference proceedings and invited presentations (not listed)

Grants

1. Quantification of Blue Carbon Stocks along Salinity Gradients from Tidal Freshwater to Coastal Marine Wetlands in the Southeastern United States. USDA-NRCS. PI: M.C. Ricker; Co-PIs: B.K. Odhiambo, J.G. Taylor. \$139,155. 1/20-12/21.
2. Quantitative Tools for Developing Ecological Sites in the Southeastern U.S. USDA-NRCS. PI: M. Vepraskas; Co-PIs: M.C. Ricker, M.R. Levi, J.N. Shaw, T. Knappenberger, P. Gale, L. Krueger, M. Duvall, B. Hart, G. Otto. \$249,313. 1/19-12/20.
3. Multi-County Soil Health Project: Establishment of Bloomsburg University Soil Health Systems Agricultural BMP Demonstration Site. Pennsylvania Department of Environmental Protection Growing Greener Grant. Contributor, \$12,000. 1/18 to 1/20.
4. Living with water: Classic Maya pond management at El Perú-Waka', Petén, Guatemala. National Geographic Society Committee for Research and Exploration Grant #HJ-100R-17. Co-PI, \$25,300. 1/18 to 12/18.
5. Water quality and soil geochemistry in alluvial deltaic deposits from large tributaries of the Susquehanna River. Degenstein Foundation: Susquehanna River Heartland Coalition for Environmental Studies. PI: M.C. Ricker, \$10,000. 5/16-5/17.