

Matthew R.V. Ross

Professional Preparation

University of Colorado at Boulder; CO, B.A. Ecology and Evolutionary Biology, Minor in French 2010

Duke University; Durham NC, Ph.D. Ecology 2017

University of North Carolina at Chapel Hill; NC, Post-doc in aquatic remote sensing 2017-2018

Employment

Colorado State University Department of Ecosystem Science and Sustainability

Assistant professor of water quality 2018–present

Publications

5 most relevant to this proposal

MRV Ross, F Nippgen, BA Hassett, BL McGlynn, ES Bernhardt. *Pyrite oxidation drives exceptionally high weathering rates and geologic CO₂ release in mountaintop-mined landscapes*. Global Biogeochemical Cycles. 2018. doi: [10.1029/2017GB005798](https://doi.org/10.1029/2017GB005798)

AA Periçak CJ Thomas, DA Kroodsma, MF Wasson, MRV Ross, NE Clinton, DJ Campagna, Y Franklin, ES Bernhardt, JF Amos. *Mapping the yearly extent of surface coal mining in Central Appalachia using Landsat and Google Earth Engine*. PLOS ONE. 2018. doi: [10.1371/journal.pone.0197758](https://doi.org/10.1371/journal.pone.0197758)

F Nippgen, MRV Ross, ES Bernhardt, BL McGlynn. *Creating a more perennial problem? Mountaintop removal coal mining enhances and sustains saline baseflows of Appalachian watersheds*. Environmental science & technology. 2017. doi: [10.1021/acs.est.7b02288](https://doi.org/10.1021/acs.est.7b02288)

MRV Ross, BL McGlynn, ES Bernhardt. *Deep impact: effects of mountaintop mining on surface topography, bedrock structure, and downstream waters*. 2016. Environmental science & technology. doi: [10.1021/acs.est.5b04532](https://doi.org/10.1021/acs.est.5b04532)

MRV Ross, ES Bernhardt, MW Doyle, JB Heffernan. *Designer ecosystems: incorporating design approaches into applied ecology*. 2015. Annual Reviews of Environment and Resources. doi: [10.1146/annurev-environ-121012-100957](https://doi.org/10.1146/annurev-environ-121012-100957)

Additional publications

Barger, N. N., Gardner, T. A., Sankaran, M., Belnap, J., Broadhurst, L., Brochier, V., Isbell, F., Meyfroidt, P., Moreira, F., Nieminen, T. M., Okuro, T., Rodrgiues, R. R., Saxena, V., and Ross, M. *Chapter 3: Direct and indirect drivers of land degradation and restoration*. In IPBES (2018): The IPBES assessment report on land degradation and restoration. Montanarella, L., Scholes, R., and Brainich, A. (eds.). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany, pp. 137-218

MC Arnold, LA Friedrich, TT Lindberg, MRV Ross, NM Halden, ES Bernhardt, VP Palace, RT Di Giulio. *Microchemical analysis of selenium in otoliths of two West Virginia fishes captured near mountaintop removal coal mining operations*. 2015. Environmental Toxicology and Chemistry. doi: [10.1002/etc.2885](https://doi.org/10.1002/etc.2885)

MR Ross, SC Castle, NN Barger. *Effects of fuels reductions on plant communities and soils in a Pi~non Juniper woodland*. 2012. Journal of arid environments. doi: [10.1016/j.jaridenv.2011.11.019](https://doi.org/10.1016/j.jaridenv.2011.11.019)

Synergistic activities

Project specific synergies will go here!