Julie Pett-Ridge

Curriculum Vitae

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**EDUCATION**

Ph.D. Isotope Geochemistry and Biogeochemistry, Cornell University, Ithaca, NY, 2007

A.B. Environmental Earth Science, Dartmouth College, Hanover, NH, 1997

**EMPLOYMENT**

2017 - Associate Professor, Department of Crop and Soil Sciences, Oregon State University

2009 - 2017 Assistant Professor, Department of Crop and Soil Sciences, Oregon State University

2011 - Adjunct Professor, Ocean Ecology and Biogeochemistry, and Geology and Geophysics, College of Earth, Ocean, and Atmospheric Science, Oregon State University

2007- 2009 Natural Environment Research Council Research Fellow, Department of Earth Sciences, University of Oxford

**PUBLICATIONS**

(*My students denoted with an asterisk.)*

\*King, E.K., Thompson, A.T, and Pett-Ridge, J.C. (in review) Underlying lithology controls trace metal mobilization during redox fluctuations. Environmental Science and Technology.

Chapela Lara, M., Buss, H.L., and Pett-Ridge, J.C. (in review) The effects of lithology on trace element and REE behavior during tropical weathering. Chemical Geology.

\*King, E.K., Perakis, S.S., and Pett-Ridge, J.C. (2018) Molybdenum isotope fractionation during adsorption to organic matter. Geochimica et Cosmochimica Acta. 222: 584-598.

Hodges, C., \*King, E.K., Pett-Ridge, J.C., and Thompson, A.T. (2018) The potential for iron reduction increases with rainfall in montane basaltic soils of Hawaii. Soil Science Society of America Journal. doi:10.2136/sssaj2017.06.0193.

Perakis, S.S., Pett-Ridge, J.C., and Catricala, C.E. (2017) Nutrient feedbacks to soil heterotrophic nitrogen fixation in forests. Biogeochemistry. 134:41-55.

Vance, D., Matthews, A., \*Keech, A., Archer, C., Hudson, G., Pett-Ridge, J.C., and Chadwick, O.A. (2016) The behavior of Cu and Zn isotopes during weathering and soil development. Chemical Geology. 445:36-53.

\*Hynicka, J.D., Pett-Ridge, J.C., and Perakis, S.S. (2016) Nitrogen enrichment regulates calcium sources in forests. Global Change Biology. 22:4067-4079.

\*King, E.K., Thompson, A., Chadwick, O.A., and Pett-Ridge, J.C. (2016) Molybdenum sources and isotopic composition during early stages of pedogenesis along a basaltic climate transect. Chemical Geology. 445:54-67.

\*McClintock, M., Brocard, G., Willenbring, J., Tamayo, C., Porder, S., and Pett-Ridge, J.C. (2015) Spatial variability of African dust in soils in a montane tropical landscape in Puerto Rico. Chemical Geology 412:69-81.

\*Marks, J.A., Perakis, S.S. \*King, E.K., and Pett-Ridge, J.C. (2015) Soil organic matter regulates molybdenum storage and mobility in forests. Biogeochemistry.

\*Marks, J.A., Pett-Ridge, J.C., Perakis, S., Allen, J., and McCune, B. (2015) Response of the nitrogen-fixing Lobaria pulmonaria to phosphorus, molybdenum, and vanadium. Ecosphere, 6(9) 155.

Siebert, C., Pett-Ridge, J.C., Halliday, A.N., and Burton, K.W. (2015) Soil Molybdenum Isotope Fractionation across climate and age gradients. Geochimica et Cosmochimica Acta. 162:1-24.

Porder, S., Johnson, A., Brocard, G., Goldsmith, S., Hao, X., and Pett-Ridge, J.C. (2015) Linking geomorphology, weathering, and cation availibility in the Luquillo Mountains of Puerto Rico. Geoderma. 249-250:100-110.

\*King, E.K., A. Thompson, C. Hodges, and J.C. Pett-Ridge. (2014) Towards understanding temporal and spatial patterns of molybdenum in the critical zone. Procedia Earth and Planetary Science, 10: 56-52.

\*Keech, A.R., A.J. West, J.C. Pett-Ridge, G.M. Henderson. (2013) Calibrating U-series tools for weathering rate and duration of a soil sequence on known ages. Earth and Planetary Science Letters. 374: 24-35.

Brantley, S.L., J.P. Megonigal, F.N. Scatena, Z. Balogh-Brunstad, R.T. Barnes, M.A. Bruns, P. van Cappelen, K. Dontsova, H. Hartnett, T. Hartshorn, A. Heimsath, E. Herndon, L. Jin, C.K. Keller, J.R. Leake, W.H. McDowell, F.C.. Meinzer, T. Mozder, S. Petsch, J. Pett-Ridge, P. Raymond, C.S. Riebe, K. Shumaker, A. Sutton-Grier, R. Walter, and K. Yoo. (2011) Twelve testable hypotheses on the geobiology of weathering. Geobiology 9(2) 140-165.

Pett-Ridge, J. C. (2009) Contributions of dust to phosphorus cycling in tropical forests of the Luquillo Mountains, Puerto Rico. Biogeochemistry, 94: 63-80.

Pett-Ridge, J. C., J. K. Barrows, and L. A. Derry. (2009) Ca/Sr and 87Sr/86Sr ratios as tracers of Ca and Sr cycling and inputs in a humid tropical forest. Chemical Geology. 267: 32-45.

Pett-Ridge, J.C., L. A. Derry, and A. C. Kurtz. (2009) Sr isotopes as a tracer of weathering processes and dust inputs in a tropical granitoid watershed, Luquillo Mountains, Puerto Rico. Geochimica et Cosmochimica Acta, 73, 25-43.

Pett-Ridge, J. C., V. M. Monastra, L. A. Derry, and O. A. Chadwick. (2007) Importance of atmospheric inputs and Fe-oxides in controlling soil uranium budgets and behavior along a Hawaiian chronosequence. Chemical Geology, 244, 691-707.

Derry, L. A., J. C. Pett-Ridge, A. C. Kurtz, and J. Troester. (2006) Ge/Si and 87Sr/86Sr tracers of weathering reactions and hydrologic pathways in a tropical granitoid system. Journal of Geochemical Exploration 88 (1-3) 271-274.