David L Nieland

Subject:

Role of erosion on OM dynamics session at Goldschmidt 2016

Participants are invited for the session Organic Matter Dynamics As Controlled by Erosion and Deposition at the 2016 Goldschmidt Conference in Yokohama Japan (June 26 – July 1). The description of the session is below. Abstract submission deadline is February 26, 2016 (http://goldschmidt.info/2016/abstracts).

13g: Organic Matter Dynamics As Controlled by Erosion and Deposition

Over a broad range of time scales, soil organic matter (SOM) processes are strongly influenced by soil erosion, deposition and the development of landscape macro/microtopography. Through the natural coevolution of geomorphic, pedogenic, and ecological processes in the critical zone or by punctual changes in these processes as a result of intensive management, dynamic landscapes establish characteristic hierarchies of physicochemical controls on organic matter stability. These mechanisms include physical isolation of organic matter (OM) inside aggregates, the chemical interaction of OM with soil minerals, and the molecular structure of primary or altered soil organic matter that defines the state of SOM persistence/resilience. For this session, contributions will be solicited from works that address soil organic matter dynamics as controlled by hillslope runoff, erosion, deposition, macro/microtopography, and riverine transport. We encourage contributions from works that investigate variables that control fate of soil organic matter after lateral mass movement events.

Keynote speaker: Sebastian Doetterl, Augsburg, University - Germany

Conveners: Neal Blair Asmeret Asefaw Berhe Sharon Billing Thanos Papanicolaou

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