UF/IFAS
Soil and Water Sciences Department

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Soil and Water Sciences Distinguished Speaker Seminar

Presented at the 19th Annual Soil and Water Sciences Research Forum

[Co-Sponsored by the UF Water Institute]

Speaker: **Dr. Johannes Lehmann**
Liberty Hyde Bailey Professor, Soil and Crop Sciences
School of Integrative Plant Sciences
College of Agriculture and Life Sciences
Cornell University
Google Scholar Profile

Title: **Soil Organic Matter Formation: Concepts and Controversies**

Date: **Monday, October 15, 2018**

Time: **9:00 am – 10:30 am**

Location: **J. Wayne Reitz Union – Rion Ballroom**

Soil organic matter is a key property of soils and underpins much of its ecosystem services, influencing soil fertility, water quality and greenhouse gas emissions. Yet its nature and formation are still debated. Interactions of organic matter with soil mineral surfaces and aggregation are seen as key to its persistence, but have not been explicitly included in soil organic matter models. The ability to observe the spatial architecture of soil and its functional group composition to sub-nanometer resolution opens up possibilities to answer questions about organo-mineral interactions through direct observation that could previously only be inferred. Such direct observation lead to the formulation of new concepts and questions the existence of humic substances in soil. Yet humification theory is still propagated in the literature and research on alkaline extracts is in fact increasing in the environmental and water sciences. Consolidating emerging concepts of soil organic matter cycles is therefore urgently needed, and this presentation discusses some recent evidence that may also inform carbon sequestration in soil as a way to mitigate and adapt to climate change.

If you can't attend the seminar, we will also have a live stream of Opening Remarks and Keynote Speaker Presentations. For additional details about the 19th Annual Soil and Water Sciences Department Research Forum, please contact Dr. Patrick Inglett, pinglett@ufl.edu.