

### Special Section: Soil as Complex Systems

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This special section of *Vadose Zone Journal* will be devoted to furthering the understanding of the complex entity and dynamical system that we call soil. The top meter or so of the terrestrial land, referred to as the soil, is the crucible of life, a self-regulating, biophysical factory, acting like a composite living entity (Hillel. 2005. J. Nat. Resour. Life Sci. Educ. 34:60–61).

This special section stems from a scientific meeting held in September 2014, called the “Complex Soil Systems Conference.” This meeting was convened with support from SSSA Bouyoucos fund, the Lawrence Berkeley National Laboratories, and the Department of Energy, Berkeley, CA (as well as other sponsors). The goal of the conference was to address the questions: What are the properties of the soil, upon which so much of human life depends? How does it form, and how can we understand that development? How does it function and respond to stresses? The soil system may be regarded as an iconic example of the science of complexity. Soil inner space is a physical network that supports immensely complex biological and geochemical networks linking fluids, plants, bacteria, and fungi, which communicate and interact in multiple ways.

We invite submission of papers related to this challenging and vital topic, where research can address problems understanding scaling, feedbacks, and nonlinear dynamics of complex, interdependent soil hydrologic and biogeochemical processes controlling carbon and nutrients cycling. We also invite papers describing modern imaging and modeling techniques, and conceptualization in terms of complexity, which discuss how to potentially aid in understanding complex soil systems.

The special section will include papers from the Complex Soil Systems Conference, but we are also soliciting contributions from other interested scientists.

Manuscript submission ( <http://mc.manuscriptcentral.com/vzj> ) deadline: April 30, 2015.