

It's a Zoo Beneath our Feet! The ecology of soil invertebrates and their functions in changing ecosystems

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In less than a handful of soil, there can be millions of types of microbes and hundreds of species of invertebrate animals. The identities and natural histories of these microscopic flora and fauna, and many of the larger visible soil fauna, are the least-known biota in terrestrial ecosystems. However, new evidence is rapidly revealing the major contributions of soil organisms to the maintenance of life on Earth, opening a new frontier for exploration and a rising concern about the loss of soil biodiversity with increasing degradation of the soil habitat locally and globally. This keynote talk will present recent evidence indicating that communities of microscopic soil animals such as nematodes, and larger ones such as earthworms, affect the way ecosystems around the globe respond to the changing climate and land use regimes. The talk will showcase recent advances in the field of soil fauna ecology which can challenge aboveground-based predictions of ecosystem functioning under global change.