

# Topsoil's limited turnover: A crisis in time

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Topsoil does not last forever. Records show that topsoil erosion, accelerated by human civilization and conventional agricultural practices, has outpaced long-term soil production. Earth's continents are losing prime agricultural soils even as population growth and increased demand for biofuels claim more from this basic resource.

Top geomorphologist David R. Montgomery of the University of Washington says that "ongoing soil degradation and loss present a global economic crisis that, although less dramatic than climate change or a comet impact, could prove catastrophic nonetheless, given time."

Montgomery is an invited speaker in the Pardee Keynote Symposia, "Human Influences on the Stratigraphic Record," on 9 October at the 2008 Joint Meeting of the Geological Society of America, Soil Science Society of America-American Society of Agronomy-Crop Science Society of America, and Gulf Coast Association of Geological Societies in Houston, Texas, USA.

In his talk on Montgomery will present the record of erosion, both in historic civilizations and today, and address the long-term implications for agricultural sustainability, including the possibility that unchecked anthropogenic erosion will in time undermine the foundation of civilization itself.

Montgomery is a Fellow of the Geological Society of America and was recently awarded a MacArthur Fellowship by The John D. and Catherine T. MacArthur Foundation, which recognizes individuals who have shown

extraordinary originality, creativity, and dedication, a marked capacity for self-direction, and promise for important future advances based on a track record of significant accomplishment.

Source: Geological Society of America

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