# Unraveling the influence of scale on organic C transport

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**Soil carbon sequestration is a potential means for offsetting the adverse effects of the human-induced rise in atmospheric $CO_2$.**

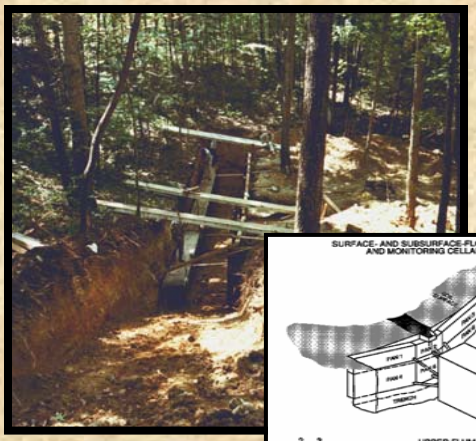
**Multi-scale experimental data aids in the development of a new conceptual model regarding DOC transport in the subsurface.**

**Unraveling scale-dependent lateral versus vertical flow and transport during storm events.**

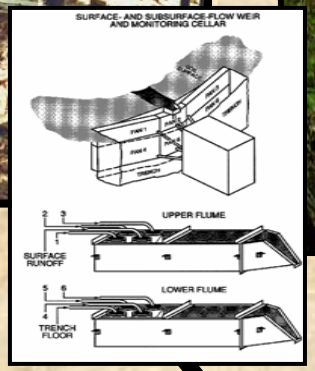
**Experimental data available for use in existing multi-component, multi-process numerical models.**

**Vertically reactive organic C through deep soil profiles may be the "missing" C flux in global budgets.**

**Field**
**10-10,000 m$^3$**



**Watershed**
**>10,000 m$^3$**




**Pedon**
**1-10 m$^3$**

**Undisturbed soil column**
**0.001-1 m$^3$**

**Batch**
**Disturbed core**
**<0.001 m$^3$**

**Multi-scale modeling**

**Jardine, P.M., M.A. Mayes, J. R. Tarver, P. J. Hanson, P.J. Mulholland, G.V. Wilson, and J.F. McCarthy. 2005. Exploring Vadose Zone Flow and Transport of Dissolved Organic Carbon at Multiple Scales in Humid Regimes. Vadose Zone Journal (in press).**

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