

**Wilfred M. Post**

Scientist

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**Education and Training**

1978	University of Tennessee-Knoxville, Ecology, PhD
1975	University of Wisconsin-Madison, Botany, MS
1971	University of Wisconsin-Madison, Mathematics, BS

**Research and Professional Experience**

1997-Present	Senior Research Scientist. Environmental Sciences Division, Oak Ridge National Laboratory. Particular emphasis is in the area of global terrestrial ecosystem carbon cycling and relationships of ecosystem dynamics to environmental, edaphic, and biological conditions. A recognized expert on soil carbon dynamics, nutrient relationships between soil and vegetation, and the impact of species composition on ecosystem processes. Recent work centers on developing data-assimilation methods to confront terrestrial ecosystem models with data from a variety of sources (atmospheric trace gas measurements, eddy-covariance networks, soil and biomass inventories) to estimate model parameters and initial conditions and to improve ecosystem models.
1985-Present	Adjunct Professor. Department of Ecology and Evolutionary Biology, University of Tennessee-Knoxville.
1980-1997	Research Staff Member. Environmental Sciences Division, Oak Ridge National Laboratory.
1978-1980	Postdoctoral Research Fellow. University of Tennessee-Knoxville

**Publications**

1. Yang, X., V. Wittig, A. Jain and W.M. Post 2009. Integration of nitrogen dynamics into a global terrestrial ecosystem model. *Global Biogeochemical Cycles* 23, 4, doi:10.1029/2009GB003474.
2. Jain, A., X. Yang, H. Keshgi, A.D. McGuire, W.M. Post, and D. Kicklighter. 2009. Nitrogen attenuation of terrestrial carbon cycle to global environmental factors. *Global Biogeochemical Cycles* 23, 4, doi:10.1029/2009GB003519.
3. Post, W.M., J.E. Amonette, R. Birdsey, C.T. Garten Jr., R.C. Izaurralde, P.M. Jardine, J. Jastrow, R. Lal, G. Marland, B.A. McCarl, A.M. Thomson, T.O. West, S.D. Wullschleger, and F.B. Metting 2009. Terrestrial Biological Carbon Sequestration: Science for Enhancement and Implementation. In (B. McPherson and E. Sundquist, eds.) *Carbon Sequestration and Its Role in the Global Carbon Cycle*. American Geophysical Union, Geophysical Monograph Series 183. pp.73-88.
4. Liu, Q., L. Gu, R.E. Dickinson, Y. Tian, L. Zhou and W.M. Post 2008. Assimilation of Satellite Reflectance Data into a Dynamical Leaf Model to Infer Seasonally Varying Leaf Area for Climate and Carbon Models. *Journal of Geophysical Research – Atmosphere* 113, D19113, doi: 10.1029/2007JD009645.
5. Gu, L., P.J. Hanson, W. M. Post, and Q. Liu 2008. A novel approach for estimating the true environmental sensitivity of soil respiration. *Global Biogeochemical Cycles* 22, GB4009, doi:10.1029/2007GB003164.
- Gu, L., P.J. Hanson, W.M. Post, D. P. Kaiser, B. Yang, R. Nemani, S. G. Pallardy and T. Meyers 2008. The 2007 eastern US spring freeze: increased cold damage in a warming world? *BioScience* 58: 253-262.
6. Izaurralde, R.C., J.R. Williams, W.M. Post, A.M. Thomson, W.B. McGill, L.B. Owens, and R. Lal 2007. Long-term modeling of soil C erosion and sequestration at the small watershed scale. *Climatic Change*. 80:73-90.
7. King, A.W., C.A. Gunderson, W.M. Post, D.J. Weston, S.D. Wullschleger 2006. Plant respiration in a warmer world. *Science* 312:356-357.

8. Jain, A.K., T.O. West, X. Yang, and W.M. Post. 2005. Assessing the Impact of Changes in Climate and CO<sub>2</sub> on Potential Carbon Sequestration in Agricultural Soils. *Geophysical Research Letters* 32, L19711, doi:10.1029/2005GL023922.
9. Post W.M., R.C. Izaurralde, J.D. Jastrow, B.A. McCarl, J.E. Amonette, V.L. Bailey, P.M. Jardine, T.O. West, J. Zhou 2004. Carbon sequestration enhancement in U.S. soils. *BioScience* 54:895-908.
10. Johnston, C.A., P. Groffman, D.D. Breshears, Z.G. Cardon, W. Currie, W. Emanuel, J. Gaudinski, R.B. Jackson, K. Lajtha, K. Nadelhoffer, D. Nelson Jr., W.M. Post, G. Retallack, L. Wielopolski 2004. Carbon cycling in soil. *Frontiers in Ecology and the Environment* 2:522-528.
11. Gu, L., W.M. Post, and A.W. King. 2003. Fast labile carbon turnover obscures sensitivity of heterotrophic respiration from soils to temperature: a model analysis. *Global Biogeochemical Cycles*, 18, GB1022, doi:10.1029/2003GB002119.
12. Post, W.M., R.C. Izaurralde, L.K. Mann, and N. Bliss 2001. Monitoring and Verifying Changes of Organic Carbon in Soil. *Climatic Change* 51:73-99.
13. Post, W. M., and K. C. Kwon. 2000. Soil carbon sequestration and land-use change: processes and potential. *Global Change Biology* 6:317-328.
14. Paustian, K., E. Levine, W. M. Post, and I. M. Ryzhova 1997. The use of models to integrate information and understanding of soil C at the regional scale. *Geoderma* 79:227-260.
15. Post, W. M., A. W. King, and S. D. Wullschleger 1997. Historical variations in terrestrial biospheric carbon storage. *Global Biogeochemical Cycles* 11:99--109.

### **Synergistic Activities**

1. Member, IPCC Task Group on Data and Scenario Support for Impacts and Climate Analysis (TGICA)
2. Member, Integrated Assessment Modeling Consortium New Scenarios (RCP) Scientific Working Group
3. Contributing Author, Climate Change Science Program, Synthesis and Assessment Product 4.3.

### **Collaborators and Co-Editors**

Gregg Marland, Anthony King, Michael Huston, Tristram West, Charles Garten, Stan Wullschleger, Paul Hanson, Hank Shugart, William Emanuel, Roger Dahlman, Elaine Matthews, Elizabeth Holland, James Shultzman, Susan Trumbore, Julia Gaudinski, Margaret Torn, Bill Riley, Celine Bonfils, John Southon, Cesar Izaurralde, Allison Thomson, Rattan Lal, Laurie Drinkwater, Julie Jastrow, Michael Miller, Gary Jacobs, Carl Tretton, Rosier Matamala, Chuck Garten, Melanie Mayes, Johann Six, Bruce McCarl, Jimmy Williams, Atul Jain, Andrew Jacobson, Deborah Huntzinger, Bob Cook, Peter Thornton, John Drake, David Erickson, Forrest Hoffman, Julie Jastrow, Roser Matamala, Michael Miller, Margaret Torn, William Riley, Anthony King, Richard Norby, Lianhong Gu, Tristram West

### **Graduate and Postdoctoral Advisors**

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Herman H. Shugart (University of Virginia)  
Donald DeAngelis (U.S.G.S., Miami FL)