

Fengming Yuan

Postdoctoral Research Associate

Oak Ridge National Laboratory, Environmental Sciences Division

Phone: (865) 574-8486

Email: yuanf@ornl.gov

Education and Training

- 2003 University of Wisconsin, Madison, Soil Science (Minor in GIS), Ph.D.
1993 Chinese Academy of Agricultural Sciences (*Beijing, China*), Soil Science, M.Ag.
1990 Hua-zhong (Central-China) Agricultural University (*Wuhan, China*), Soil Science and Plant Nutrition, B.Ag.

Research and Professional Experience

- 2011-Present Postdoctoral research associate. Oak Ridge National Laboratory, Environmental Sciences Division.
2008-2011 Postdoctoral researcher. Institute of Arctic Biology, University of Alaska - Fairbanks.
2007-2008 Research Associate, Department of Hydrology and Water Resources, University of Arizona
2003-2007 Postdoctoral fellow, Climate Change Research Program (CCRP), School of Geography and Earth Sciences, McMaster University, Canada.
1999-2003 Graduate Research Assistant, Agricultural and System Informatics Group, Department of Soil Science, University of Wisconsin, Madison.
1997-1999 Assistant Research Scientist, The Data and Sample Bank of the National Monitoring Bases of Soil Fertilizer Efficiency, Soils and Fertilizers Institute, Chinese Academy of Agricultural Sciences, Beijing, China.

Publications

1. Suo Huang, M. Altaf Arain, Vivek K. Arora, Fengming Yuan, Jason Brodeur, and Matthias Peichl, 2011. Analysis of nitrogen controls on carbon and water exchanges in a conifer forest using the CLASS-CTEMN+ model. *Ecological Modelling* 222:3743-3760.
2. F.-M. Yuan, T. Meixner, Fenn, M.E., and J. Simunek, 2011. Impact of transit soil water simulation to estimated nitrogen leaching and emission at high- and low-deposition forest sites in Southern California. *Journal of Geophysical Research – Biogeosciences* 116, G03040, doi:10.1029/2011JG001644.
3. Fenn, M.E., E. B. Allen, S.B. Weiss, S. Jovan, L. Geiser, G.S. Tonnesen, R. F. Johnson, L.E. Rao, B.S. Gimeno, F. Yuan, T. Meixner, and A. Bytnerowicz, 2010. Nitrogen critical loads and management alternatives for N-impacted ecosystems in California. *Journal of Environmental Management* 91: 2404 – 2423.
4. Benjamin S. Gimeno, Fengming Yuan, Mark E. Fenn, and Thomas Meixner, 2008. Management options for mitigating nitrogen (N) losses from N-saturated mixed-conifer forests in California. pp 425 – 455. In: Bytnerowicz, A., Arbaugh, M., Andersen, C., Riebau, A. (eds). *Wildland Fires and Air Pollution. Developments in Environmental Science* (volume 8). Elsevier Publishers, The Hague, Netherlands.
5. Fenn, M.E., S. Jovan, F. Yuan, L. Geiser, T. Meixner, B.S. Gimeno, 2008. Empirical and Simulated Critical Loads for Nitrogen Deposition in California Mixed Conifer Forests. *Environmental Pollution* 155:492 - 511.
6. Yuan, F., M.A. Arain, T.A Black, A. Barr, H. McCaughy, S. C. Wofsy, H. Margolis, C. P.-A. Bourque, and C. Coursolle, 2008. Modeling Analysis of Primary Controls on Net Ecosystem Productivity of Seven Boreal and Temperate Coniferous Forests across an East-West Continental Transect in Canada. *Global Change Biology* 14: 1765 – 1784.
7. Yuan, F., M. A. Arain, T. A. Black, and K. Morgenstern, 2007. Energy and water exchanges

modulated by soil-plant nitrogen cycling in a temperate Pacific northwest conifer forest. *Ecological Modelling* 201: 331 - 347.

8. Arain, M. A., F. Yuan, and T. A. Black, 2006. Soil-plant nitrogen cycling modulated carbon exchanges at a Pacific northwest Douglas-fir forest in Canada. *Agricultural and Forest Meteorology* 140: 171-192
9. Grant, R.F., Zhang, Y., Yuan, F., Wang, S., Hanson, Gaumont-Guay, D., P.J., Chen, J., Black, T.A., Barr, A., Baldocchi, D.D., Arain, A., 2006. Intercomparison of techniques to model water stress effects on CO₂ and energy exchange in temperate and boreal deciduous forests. *Ecological Modelling*, 196: 289 - 312.
10. Grant, R.F., Arain, M.A., Arora, V., Barr, A., Black, T.A., Chen, J., Wang, S., Yuan, F., Zhang, Y., 2005. Modelling temperature Effects on CO₂ and Energy Exchange in Temperate and Boreal Coniferous Forests. *Ecosystem Modeling*, 188: 217 – 252.
11. Yuan, F.-M. and Bland, W.L., 2005. Comparison of light- and temperature-based index models for potato (*Solanum tuberosum* L.) growth and development. *American Journal of Potato Research*, 82: 345 - 352.

Awards and Honors

American Journal of Potato Research Outstanding Paper Award (2006), The Potato Association of America

Synergistic Activities

2003-present, Member, American Geophysical Union

2002-present, Member, Ecological Society of America

2001-present, Member, Soil Science Society of America

Graduate and Postdoctoral Advisors

M.S. Advisor: Prof. Ziming Chen (Chinese Academy of Agricultural Sciences, Beijing, China)

Ph.D. co-Advisors: Dr. William L. Bland (University of Wisconsin-Madison, WI)

Postdoctoral Advisor: Dr. Altaf Arain (McMaster University, Ontario, Canada)