

**Jana R. Phillips**

780 Bob Armes Circle

Wartburg, TN 37887

Home: (865) 223-3699

randolphjd1@ornl.gov

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**Education**

1995-1999 University of Tennessee; Knoxville, Tennessee

Bachelor of Science in Agriculture

Major in Environmental Sciences and Natural Resources

1994-1995 Pellissippi State Technical Community College; Knoxville, Tennessee

Transfer to University of Tennessee

**Professional Experience**

Summary: More than ten years working experience in field and laboratory research related to “Carbon Sequestration,” “Enhancing Carbon Sequestration and Reclamation of Degraded Lands with Fossil Fuel Combustion Byproducts” and “Field Research Center at Y-12.” I have also worked with various other researchers to aid with their projects as needed.

**Oak Ridge National Laboratory**

*Environmental Sciences Division*

Research Technician, Environmental Sciences Division, November 2003-Present

- Current projects include “Carbon Sequestration” and “Enhancing Carbon Sequestration and Reclamation of Degraded Lands with Fossil Fuel Combustion Byproducts.”
- Assisted with remediation projects at the IFRC site at Y-12.
- Soil collection of metals contaminated soil from various military base throughout the US for a DOD funded project.
- Laboratory Space Manager of 2 labs and 4 field sites.
- Provide support in preparation and review of annual reports, presentations, and publications.
- Conduct wet chemistries on soil and water samples.
- Set up field and laboratory experiments as needed to meet project goals.
- Mentor students.

**University of Tennessee**

*Contracted to Oak Ridge National Laboratory/Environmental Sciences Division*

Research Associate, Environmental Sciences Division, January 2000-November 2003

- Projects included “Carbon Sequestration” and “Enhancing Carbon Sequestration and Reclamation of Degraded Lands with Fossil Fuel Combustion Byproducts.”
- Maintain and monitor field sites at Melton and Walker Branch pedons.
- Provide support in preparation and review of annual reports, presentations, and publications.
- Conduct wet chemistries on soil and water samples.
- Set up field and laboratory experiments as needed to meet project goals.
- Assistant laboratory steward for two labs.
- Work with other technical staff, researchers, and summer students to aid in meeting project goals.

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### **University of Tennessee**

Laboratory Aide, Plant and Soil Sciences Department, August 1999-December 1999

- Provided assistance to graduate student's research for thesis.
- Maintained soil data and log book.
- Prepared soil for research.
- Performed various chemical methods for soil characterization.
- Ran pH meter and UV-Vis Spectrometer.
- Prepared reagents for microbial experiments.

### **The Shoe Department**

Assistant Manager, West Town Mall, August 1994-December 1999

- Hired sales staff as needed to meet our sales goals.
- Scheduled sales staff and maintained payroll records.
- Responsible for store organization and sales promotional.
- Handled all customer service issues while on shift.
- Assisted in opening new stores in sales region.

### **Honors/Activities/Professional Affiliations**

- Technical Support Award for Environmental Sciences Division 2009
- Soil Science Society of America, Winner of Best Presentation for S-7 Division, 2003
- Soil Science Society of America, 2003-Current
- Science Fair Judge, Saint Mary's School Oak Ridge, 2003 to 2010
- Youth Softball Coach, Oak Ridge, 2003
- University of Tennessee Soil Judging Team, 1999
- Agriculture Scholarship Recipient, 1999
- Plant and Soil Science Club, 1998-1999

### **Publications (Publications/Abstracts listed as Jana Tarver and Jana Phillips)**

- Palumbo, A.V., Fisher, L.S., Martin, M., Yang, Z.K., **Tarver, J.R.**, Daniels, W.L. 2002. Application of Emerging Tools and Techniques for Measuring Carbon and Microbial Communities in Reclaimed Mine Soils. Manuscript Accepted to Environmental Management.
- Fisher, L.S., Pfiffner, S.M., Palumbo, A.V., **Tarver, J.R.**, Cantu, J., Brandt, C.C., Daniels, W.L. 2003. Carbon Accumulation and Microbial Community Structure in Reclaimed Mine Soils. Submitted for Soil Biology and Biochemistry.
- Jardine, P.M., T.L. Mehlhorn, R.M. Nesbit, D.E. Todd, **J. Tarver**, C.C. Brandt, and G.K. Jacobs. 2004. Physical and geochemical processes controlling organic C sequestration in highly weathered subsurface soils. Soil Sci. Soc. Am. J. (in preparation).
- P.M. Jardine, M.A. Mayes, P. J. Mulholland, P.J. Hanson, **J.R. Tarver**, R.J. Luxmoore, J.F. McCarthy, and G.V. Wilson. 2006. Vadose Zone Flow and Transport of Dissolved Organic Carbon at Multiple Scales in Humid Regimes.

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**Abstracts, Posters, and Presentations**

- “Development of Measurement Techniques for Carbon and Microbial Communities in Mine Soil.” Anthony Palumbo, Madhavi Martin, Zamin Yang, **Jana Tarver**, Suzanne Fisher, W. Lee Daniels, and Stan Wullschleger. USDA Symposium on Natural Resources Management to Offset Greenhouse Gas Emissions. Raleigh, NC, November 19-21 2002
- “Carbon Accumulation and Microbial Community Structure in Reclaimed Mine Soils.” Susan M. Piffner, Suzanne Fisher, Anthony Palumbo, **Jana Tarver**, James Cantu, and Craig C. Brandt. American Geophysical Union Annual Conference. San Francisco, CA, December 2002
- “Evaluation of Microbial Communities Using a Mixed Functional and Phylogenetic Array.” Anthony Palumbo, Zamin Yang, Sonia M. Tiquia, L. Wu, Richard A. Hurt, **Jana R. Tarver**, L. Suzanne Fisher, Craig C. Brandt, and Jizhong Zhou. American Geophysical Union Annual Conference. San Francisco, CA, December 2002
- “Microbial Communities, Carbon, and Nitrogen in Mine Soils Reclaimed with Fly Ash and Biosolids Amendments.” Anthony V. Palumbo, L. Suzanne Fisher, **Jana R. Tarver**, W. Lee Daniels, Zamin Yang, Sonia M. Tiquia, Liyou Wu, and Jizhong Zhou, Jim Amonette. Second Annual Carbon Sequestration Conference, Washington, DC, May 5-8, 2003
- “Development of a Mixed Functional and Phylogenetic Microarray and its Application in Reclaimed Mine Soils.” Palumbo, A.V., Yang, Z., Tiquia, S., S., L. Wu, R. A. Hurt, **Tarver, J.R.**, S. Fisher, J. Zhou. American Society for Microbiology. 103<sup>rd</sup> General Meeting, Washington, DC, May 18-22 2003
- “Metals in Leachates of Soil, Biosolids, and FlyAsh.” A.V. Palumbo, L.S. Fisher, **J.R. Tarver**, James E. Amonette, W. Lee Daniels. International Ash Utilization Symposium, Lexington, KY, October 20-22 2003. Accepted.
- “Metal Leaching and Toxicity Measurements: Fly Ash Implications for Land Application.” L.S. Fisher, A.V. Palumbo, **J.R. Tarver**, J.E. Amonette, W. L. Daniels, Y. Roh. Soil Science Society of America Annual Meeting, Denver, CO, November 2-6, 2003. Submitted.
- **Tarver, J.**, J. Palmer, D. Todd, and P. Jardine. 2003. Fate and Transport of Dissolved Organic Carbon in Soils from Two Contrasting Watersheds. Soil Science Society of America, Nov. 2-6, 2003. Denver, CO.
- Kinsall, B.L., Brandt, C.C., **Tarver, J.R.**, Palmer, J.A., and Jardine, P.M., 2003. Estimation of Carbon Immobilization in Subsurface Soils Using Historical Soils Data. Soil Science Society of America Annual Meeting, Denver, CO., Nov. 2-6, 2003.
- Jardine, P.M., **J. Tarver**, D.E. Todd, and G.K. Jacobs. 2004. Fate and transport of storm driven organic C in structured humid region soils. Carbon Sequestration Meeting.
- Palumbo, A. V., S. Fisher, M. Martin, Z. Yang, **J. Tarver**, S. D. Wullschleger. 2004. Application of emerging tools and techniques for measuring carbon and microbial communities in reclaimed mine soils. Environmental Management. Vol. 33, Supplement 1, pp S518
- Piffner, S. M., L. S. Fisher, **J. Tarver**, J. Cantu and C. C. Brandt, A. V. Palumbo. In press. Relationships among carbon accumulation, soil characteristics, and microbial community structure revealed by PLFA in reclaimed mine soils. Soil Biology and Biochemistry. 2004

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- Palumbo, A. V., **J. R. Tarver**, L. Fagan, R. Ruther, and J. E. Amonette. 2005. [Potential for metal leaching and toxicity from fly ash applied for increasing carbon sequestration in soil. Proceedings of the World of Coal Ash 2005 meeting.](#) April 11-15, 2005. Conference. Lexington, KY.
- A.V. Palumbo, C.C. Brandt, S.M. Pfiffner, L.A. Fagan, A.S. Madden, T.J. Phelps, J.C. Schryver, M.S. McNeilly, C.W. Schadt, **J.R. Tarver**, S. A. Bottomly, H.J. Mills, D.M. Akob, J.E. Kostka. An Integrated Assessment of Geochemical and Community Structure Determinants of Metal Reduction Rates in Subsurface Sediments. NABIR Meeting April 2006.
- Anthony V. Palumbo, James E. Amonette, **Jana R. Tarver**, Lisa A. Fagan, and Meghan S. McNeilly. Fly Ash Characteristics and Carbon Sequestration Potential. May 8-11, 2006. Fifth Annual Conference on Carbon Capture and Sequestration.
- M. Froberg\*, P.M. Jardine, P.J. Hanson, C.W. Swanston, D.E. Todd, **J.R. Tarver** and C.T. Garten Jr., Low Dissolved Organic Carbon Input from Fresh Litter to Deep Mineral Soils. SSSAJ 2006.
- Anthony V. Palumbo, Chris W. Schadt, Craig C. Brandt, Meghan S. McNeilly, Andrew S. Madden, Heath J. Mills, Denise M. Akob, **Jana R. Tarver**, Lisa A. Fagan, Sarah Bottomly, Susan. M. Pfiffner, Joel E. Kostka. Methanol Stimulated Uranium Reduction: Does Community Heterogeneity Matter? American Geophysical Union Meeting. 2006.
- Jardine, P.M., M.A. Mayes, P.J. Mulholland, P.J. Hanson, **J.R. Phillips**, R.J. Luxmoore, J.F. McCarthy. Vadose Zone Flow and Transport of Dissolved Organic Carbon at Multiple Scales in Humid Regimes. Soil Science Society of America Journal. 2006.
- Froeberg, M. J, P.M. Jardine, P.J. Hanson, C. Swanston, D.E. Todd Jr, **J.R. Phillips**, C.T. Garten. Low Dissolved Organic Carbon Input from Fresh Litter to Deep Mineral Soils. Soil Society of America Journal. 2007.
- Anthony V. Palumbo, James E. Amonette, **Jana R. Tarver**, Lisa A.Fagan, Meghan S. McNeilly, W. Lee Daniels. Fly Ash Characteristics and Carbon Sequestration Potential. World of Coal Ash Meeting. 2007.
- Anthony V. Palumbo, **Jana R. Tarver**, Lisa A. Fagan, Meghan S. McNeilly, Rose Ruther, L. Suzanne Fisher, and James E. Amonette. Comparing Metal Leaching and Toxicity from High pH, Low pH, and High Ammonia Fly Ash. Fuel. 2007.
- MA Mayes, **JR Phillips**, PM Jardine, CT Garten, Jr, and TO West. Carbon mobility and nitrogen transformation in forested and agricultural ecosystems. Soil Science Society of America Annual Meeting. 2008.
- Anthony V. Palumbo, Iris Porat, **Jana R. Phillips**, James E. Amonette, Meghan M. Drake, Steven D. Brown and Christopher W. Schadt. Leaching of Mixtures of Biochar and Fly Ash. World of Coal Ash Meeting. 2009.
- C.T. Garten Jr., J.L. Smith, J.E. Amonette, V.L. Bailey, D.J. Brice, H.F. Gonzalez, R.L. Graham, C.A. Gunderson, R.C. Izaurrealde, P.M. Jardine, J.D. Jastrow, M.K. Kerley, R. Matamala, M.A. Mayes, F.B. Metting, R.M. Miller, K. Moran, W.M. Post III, R.D. Sands, C.W. Schadt, **J.R. Phillips**, A.M. Thomson, D.D. Tyler, T. Vugteveen, T.O. West, S.D. Wulschleger. Intra-annual changes in biomass, carbon, and nitrogen dynamics at 4-year old switchgrass field trials in West Tennessee, USA. Global Change Biology Bioenergy. 2009.

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- *In-Situ* biostimulation of U(VI) reduction and immobilization using emulsified vegetable oil W.-M. Wu<sup>1\*</sup>, D.WATSON<sup>2</sup>, T.MEHLHORN<sup>2</sup>, J. EARLES<sup>2</sup>, M.BOYANOV<sup>3</sup>, T. GIHRING<sup>2</sup>, C. SCHADT<sup>2</sup>, K. LOWE<sup>2</sup>, **J. PHILLIPS**<sup>2</sup>, K. KEMNER<sup>3</sup>, B.SPALDING<sup>2</sup>, C.S. CRIDDLE<sup>1</sup>, P.JARDINE<sup>2</sup>, S. BROOKS<sup>21</sup>Stanford University, Stanford, CA94305, USA (\*correspondence: [BILLWU@STANFORD.EDU](mailto:BILLWU@STANFORD.EDU)) <sup>2</sup>Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA <sup>3</sup>Biosciences Division, Argonne National Laboratory, Argonne, IL60439, USA 2009.
- Anthony V. Palumbo, Iris Porat, **Jana R. Phillips**, James E. Amonette, Meghan M. Drake, Steven D. Brown and Christopher W. Schadt. Leaching of Mixtures of Biochar and Fly Ash. DOE Technical Report. 2010.
- Garten, C. T., Jr., Brice, D. J., Castro, H. F., Graham, R. L., Mayes, M. A., **Phillips, J. R.**, Post, W. M., III, Schadt, C. W., Wullschleger, S. D., Tyler, D. D., Jardine, P. M., Jastrow, J. D., Matamala, R., Miller, R. M., Moran, K. K., Vugteveen, T. W., Izaurralde, R. C., Thomson, A. M., West, T. O., Amonette, J. E., Bailey, V. L., Metting, F. B., and J. L. Smith. 2011. Response of “Alamo” switchgrass tissue chemistry and biomass to nitrogen fertilization in West Tennessee, USA. *Agr. Ecosyst. Environ.* 140: 289-297.