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EDUCATION

- Ph.D.** **Microbiology (minor: Soil, Water, and Environmental Science)**, August 2003,
University of Arizona, Tucson, AZ.
- M.S.** **Agronomy (Soil Microbiology)**, December 1998
University of Arkansas, Fayetteville, AR.
- B.S.** **Agronomy**, May 1993
University of Arkansas, Fayetteville, AR.

RESEARCH EXPERIENCE

- **Assistant Professor**, Soil & Aquatic Microbiology, Texas A&M University, College Station, TX, 1/06 - present
- **Postdoctoral Research Associate**, Oak Ridge National Laboratory, Oak Ridge, TN, 8/03 – 12/05
- **Research Associate**, University of Arizona, Tucson, AZ, 7/99 – 7/03
- **Research Specialist/Graduate Assistant**, University of Arkansas, Fayetteville, AR, 7/95 – 6/99
- **Research Analyst**, University of the Virgin Islands, St. Croix, USVI, 8/93 – 5/95
- **Laboratory Assistant**, University of Arkansas, Fayetteville, AR, 7/92 – 7/93

TEACHING EXPERIENCE

- **Instructor**, Environmental Soil Science, Texas A&M University, College Station, TX, 1/06-5/06
- **Substitute Lecturer**, Pollution Science, University of Arizona, Tucson, AZ, 1/03-5/03
- **Teaching Associate**, Marine and Freshwater Algae, University of Arizona, Tucson, AZ, 1/02-5/02
- **Teaching Associate**, Environmental Science Laboratory, University of Arizona, Tucson, AZ, 8/99-12/01
- **Substitute Lecturer**, Environmental Microbiology Laboratory, University of Arizona, Tucson, AZ, 8/01-12/01

- **Substitute Lecturer**, Environmental Science, University of Arkansas, Fayetteville, AR, 1/99 – 5/99
- **Teaching Assistant**, Soil Microbiology Laboratory, University of Arkansas, Fayetteville, AR, 8/97-12/97 & 8/95-12/95
- **Teaching Assistant**, Soil Science Discussion, University of Arkansas, Fayetteville, AR, 1/96-5/96

PROFESSIONAL AFFILIATIONS/CERTIFICATIONS

- American Society for Microbiology
- American Society of Agronomy
- Soil Science Society of America
- HAZWOPER

PUBLICATIONS

Refereed Publications

1. Amos, B.K., Y. Sung, K.E. Fletcher, **T.J. Gentry**, W.-M. Wu, C.S. Criddle, J. Zhou, and F.E. Löffler. 2007. Detection and quantification of *Geobacter lovleyi* strain SZ: Implications for bioremediation at tetrachloroethene- (PCE-) and uranium-impacted sites. 73:6898-6904.
2. Gao, H., Z.K. Yang, **T.J. Gentry**, L. Wu, C.W. Schadt, and J. Zhou. 2007. Microarray-based analysis of microbial community RNAs by whole community RNA amplification. Appl. Environ. Microbiol. 73:563-571.
3. He, Z., **T.J. Gentry**, C.W. Schadt, L. Wu, J. Liebich, S.C. Chong, Z. Huang, W. Wu, B. Gu, P. Jardine, C. Criddle, and J. Zhou. 2007. GeoChip: A comprehensive microarray for investigating biogeochemical, ecological, and environmental processes. ISME J. 1:67-77.
4. Van Nostrand, J.D., T.V. Khijniak, **T.J. Gentry**, M.T. Novak, A.G. Sowder, J.-Z. Zhou, P.M. Bertsch, and P.J. Morris. 2007. Isolation and characterization of four gram-positive nickel-tolerant microorganisms from contaminated sediments. Microb. Ecol. 53:670-682.
5. Wu, W.-M., J. Carley, J. Luo, M.A. Ginder-Vogel, E. Cardenas, M.B. Leigh, C. Hwang, S.D. Kelly, C. Ruan, L. Wu, J. Van Nostrand, **T. Gentry**, K. Lowe, T. Mehlhorn, S. Carroll, W. Luo, M.W. Fields, B. Gu, D. Watson, K.M. Kemner, T. Marsh, J. Tiedje, J. Zhou, S. Fendorf, P.K. Kitanidis, P.M. Jardine, and C.S. Criddle. 2007. *In situ* bioreduction of uranium (VI) to submicromolar levels and reoxidation by dissolved oxygen. Environ. Sci. Technol. 41:5716-5723.
6. **Gentry T.J.**, G.S. Wickham, C.W. Schadt, Z. He, and J. Zhou. 2006. Microarray applications in microbial ecology research. Microb. Ecol. 52:159-175.
7. Hwang, C., W.-M. Wu, **T.J. Gentry**, J. Carley, S.L. Carroll, C. Schadt, D. Watson, P.M. Jardine, J. Zhou, R.F. Hickey, C.S. Criddle, and M.W. Fields. 2006. Changes in bacterial community structure correlate with initial operating conditions of a field-scale denitrifying fluidized bed reactor. Appl. Microbiol. Biotech. 71:748-760.

8. Krutz, L.J., **T.J. Gentry**, S.A. Senseman, I.L. Pepper, and D.P. Tierney. 2006. Mineralisation of atrazine, metolachlor, and their respective metabolites in vegetated filter strip and cultivated soil. *Pest Manag. Sci.* 62:505-514.
9. Wu, W., J. Carley, **T. Gentry**, M.A. Ginder-Vogel, M. Fienen, T. Mehlhorn, H. Yan, S. Carroll, M.N. Pace, J. Nyman, J. Luo, M.E. Gentile, M.W. Fields, R.F. Hickey, B. Gu, D. Watson, O.A. Cirpka, J. Zhou, S. Fendorf, P.K. Kitanidis, P.M. Jardine, and C.S. Criddle. 2006. Pilot-scale in situ bioremediation of uranium in a highly contaminated aquifer. 2. Reduction of U(VI) and geochemical control of U(VI) bioavailability. *Environ. Sci. Technol.* 40:3986-3995.
10. Krutz, L.J., C.A. Beyrouy, **T.J. Gentry**, D.C. Wolf, and C.M. Reynolds. 2005. Selective enrichment of a pyrene degrader population and enhanced pyrene degradation in Bermuda grass rhizosphere. *Biol. Fert. Soils.* 41:359-364.
11. **Gentry, T.J.**, K.L. Josephson, and I.L. Pepper. 2004. Functional establishment of introduced chlorobenzoate degraders following bioaugmentation with newly activated soil. *Biodegradation* 15:67-75.
12. **Gentry, T.J.**, C. Rensing, and I.L. Pepper. 2004. New approaches for bioaugmentation as a remediation technology. *Crit. Rev. Environ. Sci. Technol.* 34:447-494.
13. **Gentry, T.J.**, G. Wang, C. Rensing, and I.L. Pepper. 2004. Chlorobenzoate-degrading bacteria in similar pristine soils exhibit different community structures and population dynamics in response to anthropogenic 2-, 3-, and 4-chlorobenzoate levels. *Microb. Ecol.* 48:90-102.
14. Wang, G., **T.J. Gentry**, G. Grass, K.L. Josephson, C. Rensing, and I.L. Pepper. 2004. Real-time PCR quantification of a green fluorescent protein-labeled, genetically engineered *Pseudomonas putida* strain during 2-chlorobenzoate degradation in soil. *FEMS Microbiol. Lett.* 233:307-314.
15. **Gentry, T.J.**, D.C. Wolf, C.M. Reynolds, and J.J. Fuhrmann. 2003. Pyrene and phenanthrene influence on soil microbial populations. *Bioremediation J.* 7:53-68.
16. Pepper, I.L., and **T.J. Gentry**. 2002. Incidence of *Bacillus anthracis* in soil. *Soil Sci.* 167:627-635.
17. Pepper, I.L., **T.J. Gentry**, D.T. Newby, T.M. Roane, and K.L. Josephson. 2002. The role of cell bioaugmentation and gene bioaugmentation in the remediation of co-contaminated soils. *Environ. Health Perspect.* 110(suppl. 6):943-946.
18. **Gentry, T.J.**, D.T. Newby, K.L. Josephson, and I.L. Pepper. 2001. Soil microbial population dynamics following bioaugmentation with a 3-chlorobenzoate-degrading bacterial culture. *Biodegradation* 12:349-357.
19. Newby, D.T., **T. J. Gentry**, and I. L. Pepper. 2000. Comparison of 2,4-dichlorophenoxyacetic acid degradation and plasmid transfer in soil resulting from bioaugmentation with two different pJP4 donors. *Appl. Environ. Microbiol.* 66:3399-3407.
20. Olexa, T.J., **T.J. Gentry**, P.G. Hartel, D.C. Wolf, J.J. Fuhrmann, and C.M. Reynolds. 2000. Mycorrhizal colonization and microbial community structure in the rhizosphere of annual ryegrass grown in pyrene-amended soils. *Int. J. Phytoremediation* 2:213-231.

21. Reynolds, C.M., D.C. Wolf, **T.J. Gentry**, L.B. Perry, C.S. Pidgeon, B.A. Koenen, H.B. Rogers, and C.A. Beyrouthy. 1999. Plant enhancement of indigenous soil microorganisms: a low cost treatment of contaminated soils. *Polar Record* 35(192):33-40.

Book Chapters

1. **Gentry T.J.**, Z. He, and J. Zhou. 2007. Detection and characterization of uncultivated microorganisms using microarrays. *In* S. Epstein (ed.). *Uncultivated Microorganisms, Microbiology Monographs*. Springer. (submitted).
2. **Gentry T.J.**, C.W. Schadt, Z. He, and J. Zhou. 2007. Chapter 83, Functional gene arrays for microbial community analysis, p. 1052-1062. *In* C.J. Hurst, R.L. Crawford, J.L. Garland, D.A. Lipson, A.L. Mills, and L.D. Stetzenbach (ed.). *Manual of Environmental Microbiology, Third Edition*. ASM Press, Washington, D.C.
3. **Gentry, T.J.**, and J. Zhou. 2006. Chapter 17, Microarray-based microbial identification and characterization, p. 276-290. *In* Y.-W. Tang and C.W. Stratton (ed.) *Advanced Techniques in Diagnostic Microbiology*. Springer, New York, NY.
4. Schadt, C.W., J. Liebich, S.C. Chong, **T.J. Gentry**, Z. He, H. Pan, and J. Zhou. 2005. Chapter 11, Design and use of functional gene microarrays (FGAs) for the characterization of microbial communities, p. 331-368. *In* T. Savidge and H. Pothulakis (ed.) *Microbial Imaging. Methods in Microbiology*. Vol. 34. Academic Press, Inc., London, UK.

Presentations/Abstracts

1. Caster, S, D. Zuberer, F. Hons, T. Provin, and **T. Gentry**. 2007. Dissolved organic carbon and nutrients in native soil under three turfgrasses and two sand-based sports-fields. *In* Abstracts, ASA-CSSA-SSSA Annual Meet., New Orleans, LA. 4-8 November 2007.*
2. **Gentry, T.J.** 2007. Genomics-based interrogation of microbial communities in uranium-contaminated soil and groundwater, Texas Branch of the American Society for Microbiology Annual Fall Meet., Huntsville, TX. 15-17 November 2007. (Invited).
3. **Gentry, T.J.** 2007. Use of microarray and metagenomic technologies to investigate microbial communities in uranium-contaminated groundwater. Professional Program in Biotechnology Seminar Series, Texas A&M University, College Station, TX. 16 October 2007. (Invited).
4. **Gentry, T.J.**, J.E. Matocha, H.J. Mjelde, and E.C. Martin. 2007. Long-term impacts of different cropping systems on soil microbial communities. *In* Abstracts, ASA-CSSA-SSSA Annual Meet., New Orleans, LA. 4-8 November 2007.
5. Harclerode, C., **T. Gentry**, and J. Aitkenhead-Peterson. 2007. *E.coli* and nutrients in Brazos County Carter Creek subcatchments. *Bacteria in Our Bayous: Water Quality Standards and Restoration Options*. 15-16 October 2007. University of St. Thomas, Houston, TX.*
6. Harclerode, C., K. Wagner, E. Martin, **T. Gentry**, J. Aitkenhead-Peterson, L. Redmon, and S. Feagley. 2007. Microbial water source contamination. Texas Plant Protection Conference, College Station, TX. 4-5 December 2007. (Invited).

7. Hazen, T.C., P. Dehal, A.P. Arkin, M.W. Fields, M. Keller, J. Zhou, G.L. Andersen, E.L. Brodie, D.L. Wyborski, C.B. Abulencia, C.L. Hemme, **T. Gentry**, D.B. Watson, and P. Richardson. 2007. Comparison of multiple ecogenomics methods for determining ecosystem function in uranium-contaminated environments. *In Abstracts, 107th General Meet., ASM, Toronto, Canada. 21-25 May 2007. ASM, Washington, D.C.*
8. He, Z., Y. Deng, J. Van Nostrand, C. Hemme, **T. Gentry**, W. Wu, C. Schadt, L. Wu, B. Gu, D. Watson, T.C. Hazen, P. Jardine, C.S. Criddle, and J. Zhou. 2007. GeoChip: Development and applications for microbial community analysis. DOE-ERSP 2nd Annual PI Meet., Lansdowne, VA. 16-19 April 2007.
9. He, Z., Y. Deng, J.D. Van Nostrand, L. Wu, C.L. Hemme, J. Liebich, **T.J. Gentry**, T.C. Hazen, A. P. Arkin, and J. Zhou. 2007. GeoChip 3.0: Further development and applications of functional gene arrays (FGAs) for analysis of microbial communities. *In Abstracts, 107th General Meet., ASM, Toronto, Canada. 21-25 May 2007. ASM, Washington, D.C.*
10. Hemme, C.L., Y. Deng, **T.J. Gentry**, L. Wu, M.W. Fields, K. Barry, D.B. Watson, N. Krypides, C. Detter, D.C. Bruce, C.W. Schadt, P. Richardson, T.C. Hazen, J.M. Tiedje, E. Rubin, and J. Zhou. 2007. Comparative metagenomics of microbial communities from pristine and contaminated groundwater. *In Abstracts, 107th General Meet., ASM, Toronto, Canada. 21-25 May 2007. ASM, Washington, D.C.*
11. Hwang, C., G.A. Corbin, W.-M. Wu, **T.J. Gentry**, J. Carley, S.L. Carroll, D. Watson, P.M. Jardine, J. Zhou, C.S. Criddle, and M.W. Fields. 2007. Changes in microbial community structure during biostimulation for uranium reduction. *In Abstracts, 107th General Meet., ASM, Toronto, Canada. 21-25 May 2007. ASM, Washington, D.C.*
12. Hwang, C., W.-M. Wu, **T.J. Gentry**, J. Carley, S.L. Carroll, D. Watson, P.M. Jardine, J. Zhou, C.S. Criddle, and M.W. Fields. 2007. Changes in microbial community structure during biostimulation for uranium reduction at different levels of resolution. DOE-ERSP 2nd Annual PI Meet., Lansdowne, VA. 16-19 April 2007.
13. Leigh, M.B., E. Cardenas, W.-M. Wu, O. Uhlik, J. Carley, S. Carroll, **T. Gentry**, T.L. Marsh, J. Zhou, P. Jardine, C.S. Criddle, and J.M. Tiedje. 2007. Microbial bioremediation of a uranium(VI) contaminated aquifer. 4th Symposium on Biosorption and Bioremediation, Prague, Czech Republic. 26-30 August 2007.
14. Raghvan, T., W. Yan, H.A. Agrama, W.D. James, **T.J. Gentry**, and R.H. Loeppert. 2007. Screening of rice cultivars for grain arsenic concentration and speciation. *In Abstracts, ASA-CSSA-SSSA Annual Meet., New Orleans, LA. 4-8 November 2007.**
15. Somenahally, A., R. Loeppert, **T.J. Gentry**, W. Yan. 2007. Arsenic speciation in rice soils with historic cotton production. *In Abstracts, ASA-CSSA-SSSA Annual Meet., New Orleans, LA. 4-8 November 2007.**
16. Wagner, K.L., L. Redmon, **T. Gentry**, and C.A. Jones. 2007. Reducing bacterial contamination of Texas watersheds. USDA-CSREES National Water Conference, Savannah, GA. 28 January – 1 February 2007.*

17. Wu, L., **T.J. Gentry**, Z.J. Huang, C.W. Schadt, W.M. Wu, D. Watson, Z.L. He, C.S. Criddle, J.M. Tiedje, T.C. Hazen, J. Zhou. 2007. Microarray-based analysis of microbial community composition and dynamics in uranium bioremediation. *In Abstracts, 107th General Meet., ASM, Toronto, Canada. 21-25 May 2007. ASM, Washington, D.C.*
18. Brewer, E.A., **T.J. Gentry**, T.W. Boutton, and D.D. Myrold. 2006. Woody plant invasion of grassland alters the composition of soil microbial communities. *In Agronomy abstracts. ASA, Madison, WI.*
19. Cardenas, E., M. Leigh, W. Wu, **T. Gentry**, T.L. Marsh, J. Zhou, C. Criddle, and J.M. Tiedje. 2006. Microbial communities involved in uranium, metal and nitrate reduction in a groundwater bioremediation site. *In Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.*
20. **Gentry, T.J.** 2006. Research activities at the DOE National Laboratories. 26 September 2006. Texas A&M Agronomy Society. Texas A&M University, College Station, TX (Invited).
21. **Gentry, T.J.**, L. Wu, Z. Huang, W. Wu, S. Kang, C.W. Schadt, J.M. Carley, G.S. Wickham, S.L. Carroll, D.B. Watson, B. Gu, P.M. Jardine, M.W. Fields, C. Criddle, and Jizhong Zhou. 2006. Use of integrated microarray technologies to correlate microbial population dynamics with field-scale uranium reduction. *In Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.*
22. Hazen, T.C., A.P. Arkin, M.W. Fields, M. Keller, J. Zhou, G.L. Andersen, E.L. Brodie, D.L. Wyborski, C.B. Abulencia, C.L. Hemme, **T. Gentry**, D.B. Watson, and P. Richardson. 2006. Integrated ecogenomics for determining ecosystem function in uranium-contaminated environments. 11th International Symposium on Microbial Ecology, Vienna, Austria. 20-25 August 2006.
23. He, Z., C.W. Schadt, **T. Gentry**, J. Liebich, S.C. Chong, X. Li, and J. Zhou. 2006. Development and evaluation of a comprehensive functional gene array for environmental studies. *In Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.*
24. Hemme, C., **T. Gentry**, C. Harzman, E. Cardenas, M.B. Leigh, W. Wu, J. Zhou, T. Marsh, and J.M. Tiedje. 2006. Genomic and physiological perspectives on bioremediation processes at the FRC. 9th Annual ERSP PI Meet., Warrenton, VA. 3-5 April 2006.
25. Hemme, C.L., **T. Gentry**, L. Wu, M.W. Fields, K. Barry, C. Detter, C. Schadt, D.C. Bruce, D. Watson, T.C. Hazen, and J. Tiedje, P. Richardson, E. Rubin, and J. Zhou. 2006. Metagenomic analysis of uranium-contaminated groundwater. *In Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.*
26. Hwang, C., G.A. Corbin, W.-M. Wu, **T.J. Gentry**, J. Carley, S.L. Carroll, D.B. Watson, P.M. Jardine, J. Zhou, C.S. Criddle, and M.W. Fields. 2006. Changes in bacterial community structure in relation to in situ uranium immobilization. DOE Environmental Remediation Sciences Program Fall Meet., Oak Ridge, TN. 23-25 October 2006.
27. Hwang, C., W.-M. Wu, **T.J. Gentry**, J. Carley, S.L. Carroll, D. Watson, P.M. Jardine, J. Zhou, C.S. Criddle, and M.W. Fields. 2006. Changes in bacterial community structure correlate with *in situ* uranium immobilization. *In Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.*

28. Sung, Y., **T. Gentry**, J. Zhou, and F. E. Loeffler. 2006. 16S rRNA gene-based detection of tetrachloroethene- and uranium-reducing *Geobacter lovleyi* strain SZ. *In* Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.
29. Wu, W.-M., J. Carley, M. Ginder-Volgel, C. Hwang, S.D. Kelly, M. Gentile, **T. Gentry**, M.B. Leigh, E. Cardanans, J. Nyman, M. Fienen, S. Carroll, H. Yan, K. Lowe, J. Luo, T. Melhourne, T.L. Marsh, D. Watson, M.W. Fields, B. Gu, J. Zhou, K.M. Kemner, P. Jardine, S. Fendorf, P. Kitanidis, J. Tiedje, and C.S. Criddle. 2006. Characterization of *in situ* biological uranium (VI) reduction/immobilization at the NABIR Field Research Center, Oak Ridge, TN. *In* Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.
30. Wu, W.-M., J. Carley, M.A. Ginder-Volgel, J. Luo, C. Hwang, S.D. Kelly, M.B. Leigh, E. Cardenas, L. Wu, C. Ruan, W. Luo, M.E. Gentile, **T. Gentry**, J. Nyman, M. Fienen, S. Carroll, K. Lowe, T. Mehlhorn, T.L. Marsh, D. Watson, M.W. Fields, B. Gu, J. Zhou, K.M. Kemner, J. Tiedje, P.M. Jardine, S. Fendorf, P.K. Kitanidis, and C.S. Criddle. 2006. Biological uranium (VI) reduction/immobilization near source zone at the ERSP Field Research Center, Oak Ridge, TN. DOE Environmental Remediation Sciences Program Fall Meet., Oak Ridge, TN. 23-25 October 2006.
31. Yan, T, **T.J. Gentry**, D.B. Watson, and J. Zhou. 2006. Shifts in groundwater microbial community structure along contaminant-gradients at the DOE ERSP-Field Research Center in Oak Ridge, TN. *In* Abstracts, 106th General Meet., ASM, Orlando, FL. 21-25 May 2006. ASM, Washington, D.C.
32. Zhou, J., **T. Gentry**, C. Hemme, L. Wu, M.W. Fields, C. Detter, K. Barry, D. Watson, C.W. Schadt, P. Richardson, J. Bristow, T.C. Hazen, J. Tiedje, and E. Rubin. 2006. Metagenomic analysis of microbial communities in uranium-contaminated groundwaters. DOE Genomics:GTL Annual Workshop, Washington, D.C. February 2006.
33. Zhou, J., Z. He, **T. Gentry**, W. Wu, C. Schadt, L. Wu, W. Luo, B. Gu, D. Watson, and C.S. Criddle. 2006. Development and use of integrated microarray-based genomic technologies for monitoring microbial community dynamics during biostimulation. 9th Annual ERSP PI Meet., Warrenton, VA. 3-5 April 2006.
34. Zuberer, D.A., F.M. Hons, T. Provin, **T. Gentry**, and S. Caster. 2006. Monitoring dissolved organic carbon and nutrients in soil solution of an urban landscape. *In* Agronomy abstracts. ASA, Madison, WI.
35. Gao, W., **T.J. Gentry**, S.L. Carroll, T.L. Mehlhorn, M.W. Fields, P.M. Jardine, and J. Zhou. 2005. Microbiological characterization of contaminated groundwater at the DOE WAG5 site in Oak Ridge, TN. *In* Abstracts, 105th General Meet., ASM, Atlanta, GA. 5-9 June 2005. ASM, Washington, D.C.
36. **Gentry, T.J.**, R.M. Lynch, C.W. Schadt, W. Wu, J.M. Carley, S.L. Carroll, G.S. Wickham, D.B. Watson, P.M. Jardine, C.S. Criddle, M.W. Fields, and J. Zhou. 2005. Microbial population dynamics during field-scale, *in situ* remediation of uranium- and nitrate-contaminated groundwater. *In* Abstracts, 105th General Meet., ASM, Atlanta, GA. 5-9 June 2005. ASM, Washington, D.C.

37. **Gentry, T.J.**, L. Wu, Z. Huang, W. Wu, C.W. Schadt, J.M. Carley, S.L. Carroll, D.B. Watson, B. Gu, P.M. Jardine, M.W. Fields, C. Criddle, and J. Zhou. 2005. Microbial community dynamics during the field-scale remediation of uranium-contaminated soil and groundwater. *In* Agronomy abstracts. ASA, Madison, WI.
38. Hwang, C., **T. Gentry**, W. Wu, S.L. Carroll, P.M. Jardine, C. Criddle, J. Zhou, and M.W. Fields. 2005. Bacterial community structure of a denitrifying fluidized bed reactor treating uranium-contaminated groundwater. *In* Abstracts, 105th General Meet., ASM, Atlanta, GA. 5-9 June 2005. ASM, Washington, D.C.
39. Leigh, M.B., E. Cardenas, C. Harzman, W. Gao, **T. Gentry**, J. Zhou, T. Marsh, and J.M. Tiedje. 2005. Understanding the bioremediative potential of FRC microbial communities. 8th Annual NABIR PI Meet., Warrenton, VA. 18-20 April 2005.
40. Wickham, G.S., C.W. Schadt, **T.J. Gentry**, L. Wu, S. Wan, S.P. DiFazio, and J. Zhou. 2005. Microbial community genomic composition associated with ambient and elevated levels of carbon dioxide, temperature, and moisture as determined by microarray analysis of nitrogen cycle genes. *In* Abstracts, 105th General Meet., ASM, Atlanta, GA. 5-9 June 2005. ASM, Washington, D.C.
41. Wu, W., J. Carley, M. Ginder-Vogel, **T. Gentry**, M. Fienen, J. Nyman, E. Tsai, S. Carroll, H. Yan, J. Luo, M. Gentile, T. Mehlhorn, M. Fields, B. Gu, D. Watson, J. Zhou, P. Jardine, S. Fendorf, P. Kitanidis, and C.S. Criddle. 2005. Field-scale demonstration of *in situ* biological uranium (VI) reduction at the NABIR Field Research Center, Oak Ridge, TN. *In* Abstracts, 105th General Meet., ASM, Atlanta, GA. 5-9 June 2005. ASM, Washington, D.C.
42. Wu, W., M. Ginder-Vogel, M. Fienen, J. Nyman, M. Gentile, J. Luo, O. Cirpka, S. Fendorf, P. Kitanidis, C. Criddle, J. Carley, **T. Gentry**, T. Mehlhorn, S. Carroll, H. Yan, J. Zhou, B. Gu, D. Watson, P.M. Jardine, and M. Fields. 2005. Field-scale demonstration of *in situ* biological uranium (VI) reduction at the Area 3, NABIR Field Research Center, Oak Ridge, TN. 8th Annual NABIR PI Meet., Warrenton, VA. 18-20 April 2005.
43. Zhou, J., **T. Gentry**, C. Hemme, L. Wu, M.W. Fields, C. Detter, K. Barry, D. Watson, C.W. Schadt, P. Richardson, T.C. Hazen, J. Tiedje, and E. Rubin. 2005. Metagenomic analysis of microbial communities in uranium-contaminated groundwaters. International Conference on Microbial Genomes, Halifax, Canada. 13-16 April 2005.
44. Zhou, J., **T. Gentry**, C. Hemme, L. Wu, M.W. Fields, C. Detter, D. Watson, C.W. Schadt, P. Richardson, and E. Rubin. 2005. Metagenomic analysis of microbial communities in uranium-contaminated groundwaters. 13th Annual International Meeting on Microbial Genomes, Madison, WI. 11-15 September 2005.
45. Zhou, J., L. Wu, **T. Gentry**, C. Schadt, Z. He, and X. Li. 2005. Development and use of integrated microarray-based genomic technologies for assessing microbial community composition and dynamics. 8th Annual NABIR PI Meet., Warrenton, VA. 18-20 April 2005.
46. **Gentry, T.J.**, C.W. Schadt, W. Wu, C.S. Criddle, J.M. Carley, J.D. Istok, M. Sapp, S.L. Carroll, T.L. Mehlhorn, M.A. Bogle, R.F. Hickey, D.D. Watson, P.M. Jardine, and J. Zhou. 2004. Use of integrated microarray technologies to monitor microbial communities during the remediation of a groundwater system contaminated with high levels of nitrate and uranium. *In* Abstracts, 104th General Meet., ASM, New Orleans, LA. 23-27 May 2004. ASM, Washington, D.C.

47. Krutz, L.J., **T.J. Gentry**, S.A. Senseman, D.A. Zuberer, and D.P. Tierney. 2004. Adsorption-desorption and mineralization of atrazine and atrazine metabolites as related to microbiological and chemical characteristics of vegetated filter strip and cultivated soil. 57th Annual Meet., Southern Weed Science Society, Memphis, TN. 26-28 January 2004.
48. Li, X., Z. He, C.W. Schadt, S.C. Chong, J. Liebich, **T.J. Gentry**, M.W. Fields, and J. Zhou. 2004. Development of CommOligo to select unique and group specific probes for oligonucleotide microarrays using global alignment. *In Abstracts*, 104th General Meet., ASM, New Orleans, LA. 23-27 May 2004. ASM, Washington, D.C.
49. Lynch, R.M., **T.J. Gentry**, C.W. Schadt, and J. Zhou. 2004. Linking microbial diversity with functional stability of a fluidized bed reactor during remediation of nitrate- and uranium-contaminated groundwater. DOE Science Undergraduate Laboratory Internship Poster Session, Oak Ridge, TN. 11 August 2004.
50. Schadt, C.W., **T.J. Gentry**, J. Liebich, S.C. Chong, Z. He, H. Pan & J. Zhou. 2004. Development of a functional gene microarray for analyzing microbial genomes and communities. 12th Annual International Meeting on Microbial Genomes, Lake Arrowhead, CA. 26-30 September 2004.
51. Zhou, J., S.-K. Rhee, C. Schadt, **T. Gentry**, Z. He, X. Li, X. Liu, J. Liebich, S.C. Chong, and L. Wu. 2004. Development and use of integrated microarray-based genomic technologies for assessing microbial community composition and dynamics. 7th Annual NABIR PI Meet., Warrenton, VA. 15-17 March 2004.
52. Zhou, J., S.-K. Rhee, C. Schadt, **T. Gentry**, Z. He, X. Li, X. Liu, J. Liebich, S.C. Chong, and L. Wu. 2004. Functional gene arrays. 10th International Symposium on Microbial Ecology, Cancun, Mexico. 22-27 August 2004.
53. **Gentry, T.J.**, I.L. Pepper, G. Wang, and C. Rensing. 2003. Molecular ecology of chlorobenzoate degraders in soil: rationale for bioaugmentation. *In Agronomy abstracts*. ASA, Madison, WI.
54. **Gentry, T.J.**, G. Grass, C. Rensing, and I.L. Pepper. 2002. Development of a GFP-reporter system to detect pJP4 plasmid transfer in soil. *In Abstracts*, 102nd General Meet., ASM, Salt Lake City, UT. 19-23 May 2002. ASM, Washington, D.C.
55. **Gentry, T.J.**, and I.L. Pepper. 2002. Enhanced degradation of 2-, 3-, and 4-chlorobenzoate in two soils through bioaugmentation with activated soil. Superfund Basic Research Program Annual Meeting, Tucson, AZ. 3-6 November 2002.
56. **Gentry, T.J.**, and I.L. Pepper. 2002. GFP-labeled plasmid for monitoring horizontal gene transfer in soil. *In Agronomy abstracts*. ASA, Madison, WI.
57. **Gentry, T.J.**, G. Grass, C. Rensing, and I.L. Pepper. 2001. Detection of plasmid pJP4 gene-transfer in soil via a GFP-reporter gene system. *In Agronomy abstracts*. ASA, Madison, WI.
58. **Gentry, T.J.**, D.T. Newby, K.L. Josephson, and I.L. Pepper. 2001. Microbial population dynamics during 3-chlorobenzoate degradation in soil. First U.S.-Egypt Workshop in Microbial Ecology. 6-10 May 2001, Cairo, Egypt.

59. **Gentry, T.J.**, and I.L. Pepper. 2001. Characterization of dominant 3-chlorobenzoate degrader populations in a pristine soil. *In* Abstracts, 101st General Meet., ASM, Orlando, FL. 20-24 May 2001. ASM, Washington, D.C.
60. **Gentry, T.J.**, K.L. Josephson, D.T. Newby, and I.L. Pepper. 2000. Degradation of 2,4-dichlorophenoxyacetic acid and 3-chlorobenzoic acid in two soils with variable organic matter content. Poster Q174. p. 579. *In* Abstracts, 100th General Meet., ASM, Los Angeles, CA. 21-25 May 2000. ASM, Washington, D.C.
61. **Gentry, T.J.**, D.T. Newby, K.L. Josephson, and I.L. Pepper. 2000. Microbial population dynamics during 3-chlorobenzoate degradation in soil. p. 265. *In* Agronomy abstracts. ASA, Madison, WI.
62. **Gentry, T.J.**, T.J. Olexa, P.G. Hartel, J.J. Fuhrmann, D.M. Sylvia, C.M. Reynolds, and D.C. Wolf. 1999. Impact of pyrene contamination on soil microorganisms. p. 234. *In* Agronomy abstracts. ASA, Madison, WI.
63. Olexa, T.J., **T.J. Gentry**, P.G. Hartel, D.C. Wolf, J.J. Fuhrmann, D.M. Sylvia, and C.M. Reynolds. 1999. Changes in mycorrhizal colonization and microbial community structure in soils contaminated with pyrene. Fourth International IBC Conference on Phytoremediation. June 22-25, Markam, Ontario, Canada.
64. **Gentry, T.J.**, D.C. Wolf, C.S. Pidgeon, L.B. Perry, C.M. Reynolds, and C.A. Beyroudy. 1998. Influence of pyrene on soil microbial populations. p. 8. *In* Southern Branch Agronomy abstracts. ASA, Madison, WI.
65. **Gentry, T.J.**, D.C. Wolf, C.S. Pidgeon, C.M. Reynolds, and J.J. Fuhrmann. 1998. Enumeration of pyrene-degrading microorganisms in contaminated soil. p. 224. *In* Agronomy abstracts. ASA, Madison, WI.
66. Wolf, D.C., C.A. Beyroudy, C.M. Reynolds, **T.J. Gentry**, and H.B. Rogers. 1998. Using plants to remediate petroleum-contaminated soils. p. 12. *In* Southern Branch Agronomy abstracts. ASA, Madison, WI.
67. **Gentry, T.J.**, D.C. Wolf, C.S. Pidgeon, C.M. Reynolds, and C.A. Beyroudy. 1997. Rhizosphere populations in PAH-contaminated soil. p. 208. *In* Agronomy abstracts. ASA, Madison, WI.
68. Adjei, M.B., and **T.J. Gentry**. 1996. Forage growth and performance of lablab bean in the semi-arid tropics. p. 42. *In* Agronomy abstracts. ASA, Madison, WI.
69. **Gentry, T.J.**, D.C. Wolf, P.G. Hartel, and J.J. Fuhrmann. 1996. Rhizosphere influence on soil bacterial diversity. p. 11. *In* Southern Branch Agronomy abstracts. ASA, Madison, WI.
70. **Gentry, T.J.**, D.C. Wolf, C.M. Reynolds, H.B. Rogers, and C.A. Beyroudy. 1996. Pyrene influence on soil microbial populations. p. 229. *In* Agronomy abstracts. ASA, Madison, WI.
71. Rogers, H.B., C.A. Beyroudy, D.C. Wolf, **T.J. Gentry**, and C.M. Reynolds. 1996. Influence of soils on decomposition rates of organic chemicals: Implications for bioremediation. p. 343. *In* Agronomy abstracts. ASA, Madison, WI.

72. Adjei, M.B., and **T.J. Gentry**. 1994. Deferment date and harvest management effects on yield and quality of grass/legume forage bank systems in semi-arid tropics. p. 71. *In* Agronomy abstracts. ASA, Madison, WI.

Proceedings

1. Krutz, L.J., **T.J. Gentry**, S.A. Senseman, D.A. Zuberer, and D.P. Tierney. 2004. Sorption and mineralization of metolachlor, metolachlor ethanesulfonic acid, and metolachlor oxanilic acid in vegetated filter strip and cultivated soil. *Proc. Weed Sci. Soc. Ab.*
2. Reynolds, C.M., D.M. Sylvia, T. Olexa, P.G. Hartel, **T.J. Gentry**, and D.C. Wolf. 1999. Mycorrhizal colonization of ryegrass in contaminated soils. *In* Proc. Ninth Annual West Coast Conf. on Contaminated Soils and Groundwater. 8-11 March 1999, Oxnard, CA.
3. Reynolds, C.M., C.S. Pidgeon, L.B. Perry, **T.J. Gentry**, and D.C. Wolf. 1998. Rhizosphere-enhanced benefits for remediating recalcitrant petroleum compounds. *In* Proc. 14th Annual Conf. on Contaminated Soils. 19-22 October 1998, Amherst, MA.
4. Reynolds, C.M., **T.J. Gentry**, D.C. Wolf, L.B. Perry, C.S. Pidgeon, H.B. Rogers, and C.A. Beyrouy. 1997. Phytoremediation of hydrocarbon-contaminated soils. p. 463-472. *In* K.L. Sublette (ed.) Environmental issues and solutions in exploration, production, and refining. *Proc. Fourth Annual Int. Petroleum Environmental Conf.* 9-12 Sept. 1997. San Antonio, TX.
5. Adjei, M.B., **T.J. Gentry**, and R.W. Godfrey. 1996. Grazing management for improved guineagrass persistence. *In* Proc. Caribbean Food Crops Soc. 32:54-64.
6. Rogers, H.B., C.A. Beyrouy, D.C. Wolf, **T.J. Gentry**, and C.M. Reynolds. 1996. Influence of soils on decomposition rates of organic chemicals: Implications for bioremediation. *In* Proc. 11th Annual Conf. on Contaminated Soils. 21-24 October 1996, Amherst, MA.
7. Adjei, M.B., and **T.J. Gentry**. 1995. Forage growth and performance of lablab bean in the semi-arid tropics. *In* Proc. Caribbean Food Crops Soc. 31:236-243.
8. Adjei, M.B., W.F. Brown, and **T.J. Gentry**. 1994. The effects of moisture, urea level, and method of application on the chemical composition and digestibility of native grass hay in the Caribbean. *In* Proc. Caribbean Food Crops Soc. 30:186-193.
9. Adjei, M.B., **T.J. Gentry**, S.C. Schank, and A. Sotomayor-Rios. 1994. Forage yield, quality and persistence of interspecific *Pennisetum* hybrids in the Caribbean. *In* Proc. Caribbean Food Crops Soc. 30:163-168.

Other Publications

1. **Gentry, T.J.** 1997. Appendix 2, Sample Literature Review, p. 211-218; Appendix 3, Sample Proposal, p. 219-228; and Appendix 12, Sample Slide Set, p. 269-277. *In* M. Davis, Scientific Papers and Presentations. Academic Press, San Diego, CA.
2. Adjei, M.B., **T.J. Gentry**, and R.W. Godfrey. 1995. Sheep grazing pressure effects on the productivity of guineagrass pasture. *UVI Food and Agric. Res.* 7:9-12.
3. Adjei, M.B., and **T.J. Gentry**. 1994. Improving guineagrass forage feeding value by urea treatment. *UVI Food and Agric. Res.* 6:18-21.