

ANTHONY V. PALUMBO

Biosciences Division
Oak Ridge National Laboratory
P.O. Box 2008 MS6342
Oak Ridge, TN 37831-6342

Distinguished Scientist
Phone: (865) 576-8002
FAX: (865) 574-3036
E-mail: palumboav@ornl.gov

EDUCATION

1980 North Carolina State University	Ph.D. Marine Science
1976 North Carolina State University	M.S. Marine Science
1973 Rensselaer Polytechnic Institute	B.S. Biology

PROFESSIONAL POSITIONS

2002 - Present	Group Leader, Microbial Ecology and Physiology, Environmental Sciences Division (ESD) and Biological Sciences Division, Oak Ridge National Laboratory.
2002 – Present	Adjunct Faculty, University of Tennessee, Knoxville, TN.
2001 – 2002	Distinguished Scientist and Group Leader, Plant and Microbial Systems, ESD, ORNL.
2000 – 2001	Section Head, Earth and Microbial Science, ESD, ORNL.
1999 – 2000	Science Team Leader for Biogeochemistry, ESD, ORNL.
1997 – 1999	Senior Staff and Member of the Research Council, ESD, ORNL.
1993 – 1996	Group Leader, Microbial Interactions, ESD, ORNL.
1987 – 1987	Staff Member, ESD, ORNL.
1983 – 1986	Research Associate, University of Tennessee, Knoxville, TN.
1981 – 1983	Research Associate, University of North Carolina, Chapel Hill, NC.
1979 – 1981	Postdoctoral Associate, Massachusetts Institute of Technology, Cambridge, MA.

PROFESSIONAL SERVICE, AFFILIATIONS, AND HONORS

Fellow of the American Academy for Microbiology 1997 - present
Former Member of US DOE OTD, Technology Support Group
Former Member of RTDF, Chlorinated Solvents Working Group
Former Member of Working Group for DOE OHER NABIR Program Plan

INVENTION DISCLOSURES AND PATENTS (2 patents issued, 6 disclosures)

Patent No. 5,807,697. Strong-Gunderson, J.M. and A.V. Palumbo. Biological Tracer Method.
Patent No. 6,229,146. Cochran, J., T.J. Phelps, J.F. McCarthy, and A.V. Palumbo. Position sensitive radioactivity detector for gas and liquid chromatography.

SELECTED RECENT PUBLICATIONS (from >105)

Yang, Y., D.P. Harris, F. Luo, L. Wu, A.B. Parsons, A.V. Palumbo, and J. Zhou. In press. Physiological and transcriptomic analyses to characterize the function of Fur and iron response in *Shewanella oneidensis*. BMC Genomics.
Palumbo, A.V., J.C. Tarver, L.A. Fagan, M.S. McNeilly, R. Ruther, L.S. Fisher, and J.E. Amonette. 2007. Comparing metal leaching and toxicity from high ph, low ph, and high ammonia fly ash. Fuel 86:1623-1630.
Schryver, J.C., C.C. Brandt, S.M. Pfiffner, A.V. Palumbo, J.S. Almeida, A.D. Peacock, D.C. White, J.P. McKinley, and P.E. Long. 2006. Application of nonlinear analysis methods for identifying relationships between microbial community structure and groundwater geochemistry. Microb. Ecol. 51:177-188.

- Fields, M.W., J.C. Schryver, C.C. Brandt, T. Yan, J. Zhou, and A.V. Palumbo. 2006. Confidence intervals for similarity values achieved from direct sequence determination of cloned 16S rRNA genes from environmental samples. *J. Microbiol. Meth.* 65:144-152.
- Stapleton, R.D. Jr., Z.L. Sabree, A.V. Palumbo, C. Moyer, A. Devol, Y. Roh, and J-Z. Zhou. 2005. Metal reduction at cold temperatures by *Shewanella* isolates from various marine environments. *Aquat. Microb. Ecol.* 38: 81-91.
- Palumbo, A.V., J.C. Schryver, M.W. Fields, C.E Bagwell, J-Z. Zhou, T. Yan, X. Liu, and C.C. Brandt. 2004. Coupling of functional gene diversity and geochemical data from environmental samples using ANN. *Appl. Environ. Microbiol.* 70:6525-6534.
- Palumbo, A.V., S. Fisher, M. Martin, Z. Yang, J. Tarver, and S.D. Wulfschleger. 2004. Application of emerging tools and techniques for measuring carbon and microbial communities in reclaimed mine soils. *Environ. Manage.* 33(S1):S518-S527.
- Pfiffner, S.M., A.V. Palumbo, and G. Sayles. 2004. Microbial population and degradation activities changes monitored during chlorinated solvent biovent demonstration. *Ground Water Monit. Remed.* 24:102-110.
- Palumbo, A.V., W.L. Daniels, J.A. Burger, J.F. McCarthy, S.D. Wulfschleger, J. E. Amonette, and L.S. Fisher. 2004. Prospects for enhancing carbon sequestration and reclamation of degraded lands with fossil-fuel combustion byproducts. *Adv. Environ. Res.* 8:425-438.
- Zhou, J.Z., B.-C. Xia, H. Huang A.V. Palumbo, and J.M. Tiedje. 2004. Microbial diversity and heterogeneity in oligotrophic, sandy subsurface soils. *Appl. Environ. Microbiol.* 70:1723-1734.

COLLABORATORS & OTHER AFFILIATIONS

Graduate education: PhD advisor: J. Miller, chair (North Carolina State University). Postdoctoral advisors: R. Ferguson (NOAA – Beaufort, NC) and F. Pfaender (University of North Carolina)

Postgraduate Scholars sponsored: S. Rishell (Dublin University); T. Vishnivetskaya (Russian Academy of Sciences) T. Yan (Northeast Forestry University, CHN); M. McNeilly (University of Tennessee), L.S. Fischer (now TVA).

Recent Graduate Students (last 4 years): E. Hollister (Texas A & M).

Recent Undergraduate Students (last 4 years): R. Ruther (New College); S. Klapman (Furman University); R. Dunstan (Washington University, St. Louis).

Significant Recent Collaborators and co-editors: J.-Z. Zhou (University of Oklahoma), P. Sobecky (Georgia Institute of Technology), A. Devol (University of Washington), T. Hazen (LBNL), J. Tiedje (Michigan State University), J. Amthor (PNNL), V.M. Ibeanusi (Clark Atlanta University), C. Bondzi (Hampton University), J. Wall (University of Missouri), D. Elias (University of Missouri), F.M. Saunders (Georgia Institute of Technology), M. Fields (University of Montana), W.L. Daniels (Virginia Tech), J. Kostka (Florida State University), Kim Lewis (Northeastern University).

Also see authors on recent pubs above.