

**CURRICULUM VITAE**  
**of**  
**Phillip R. Scheuerman**

**ADDRESS:** Department of Environmental Health, Environmental Health Sciences Laboratory, College of Public and Allied Health, East Tennessee State University, Box 70,682, Johnson City, TN 37614

**TELEPHONE:** (423)-439-7078                      **EMAIL:** philsche@etsu.edu

**EDUCATION:** Ph.D., Environmental Engineering Sciences, University of Florida, Gainesville, Florida (1984)  
M.S., Environmental Engineering Sciences, University of Florida, Gainesville, Florida (1978)  
B.S., Microbiology, University of Florida, Gainesville, Florida (1975)

**EXPERIENCE:** Professor, Department of Environmental Health and Director, Environmental Health Sciences Laboratory, Department of Environmental Health, College of Public Health, East Tennessee State University, June 2012 – Present

Professor, Chair Department of Environmental Health and Director, Environmental Health Sciences Laboratory, Department of Environmental Health, College of Public Health, East Tennessee State University, October 2000 – June 2012

Professor, Interim Chair Department of Environmental Health and Director, Environmental Health Sciences Laboratory, Department of Environmental Health, College of Public and Allied Health, East Tennessee State University, August 1999-October 2000

Associate Professor and Director, Environmental Health Sciences Laboratory, Department of Environmental Health, College of Public and Allied Health, East Tennessee State University, August 1991-August 1999

Assistant Professor and Director, Environmental Health Sciences Laboratory, Department of Environmental Health, School of Public and Allied Health, East Tennessee State University, August 1986-July 1991

Post Doctoral Research Associate, Department of Agronomy, Laboratory of Soil Microbiology, Cornell University, Ithaca New York. August 1985-August 1986. Studies of fate of novel bacteria released to the environment. Martin Alexander Mentor

Post Doctoral Research Associate, Center for Wetlands and Department of Environmental Engineering Sciences, University of Florida, Gainesville, Florida. January 1984-August 1985. I studied the effect of primary and secondary wastewater discharge on the microbial ecology of wetlands; included fate of indigenous bacteria, indicator bacteria, viruses, and bacteriophage. Studies on the formation of mutagenic compounds after discharge of chlorinated effluents. G. Bitton, and S.R. Farrah mentors.

**RESEARCH:** Public health microbiology, aquatic and soil microbial ecology and toxicology.

1. Risk Assessment and Risk Modeling of exposure to pathogens and chemicals via environmental and occupational pathways.
2. Application of bioindicator data to human and ecological risk assessment processes.
3. Evaluation, development and modeling of fecal pollution and source indicators in surface water.

4. Development of PCR methods for detecting Giardia and Cryptosporidium in surface waters. Development of risk assessment models for exposure to Giardia and Cryptosporidium in surface waters.
5. Use of constructed wetlands for waste treatment.

**TEACHING:**

Environmental Microbiology, Environmental Chemistry, Soil Science, Water and Wastewater Treatment, Biostatistics, Toxicology, Characterization of Hazardous Materials, Risk Assessment, and Hazardous Materials Response, Research Methods.

Instructor: Comprehensive Study of Occupational Safety and Health Technology. January - August 1993. East Tennessee State University School of Continuing Studies and Department of Environmental Health.

**UNIVERSITY SERVICE:**

Departmental committee to establish a minor in Environmental Health (1986-1987).

Chair, Departmental committee to review graduate option in solid and hazardous wastes (1986-1987).

School of Public and Allied Health, Special Events Committee, (1987-1988).

Chair, School of Public and Allied Health, Equipment and Technology Committee (1987-1988).

Department of Environmental Health, Graduate Admission Committee (Indefinite)

Department of Environmental Health, Department Chair search committee (1987-1988).

Department of Health Sciences, search committee for Immunologist (1987-1988).

School of Public and Allied Health, Promotion and Tenure Committee (1987-1989).

Chair, Ad Hoc Committee to study consolidation of Dental Assisting and Dental Hygiene Programs (1988-1989).

Ad Hoc Committee on faculty computer skills and training (1988-1989).

Search Committee, Director of Research and Sponsored Programs (1989).

Curriculum Committee, Development of a Graduate Hazardous Waste Management Option (1989-1990).

Research Development Committee (1988-1991); Chair (1989/1990) Short Review Committee - Chair (1990/1991).

Institutional Review Board (1988 - 1993).

Information Resources Council 1992

Wellness Committee (1989-1992).

University Promotion and Tenure Appeals Committee (1992 - 1993).

Faculty Senator School of Public and Allied Health East Tennessee State University (1989-1992).

Faculty Advisor Epsilon Nu Eta.

Faculty Judge James H. Quillen College of Medicine Annual Research Forum - Spring Semester 1990.

Department of Environmental Health, Department Chair search committee (1990-1991).

Chair, Department of Environmental Health, search committee for Toxicologist (1990-1991).

Division of Health Sciences, Information Resources Advisory Committee, (1990 - 1993).

Promotion and Tenure Committee, College of Nursing, Fall 1991

College of Public and Allied Health Promotion and Tenure Committee (1992 - 1997)

Institutional Biosafety Committee, (1992 - Present), Chair 2000-Present

Ad Hoc committee to review and revise ETSU Scientific Misconduct Policy (1996)

College of Public and Allied Health Awards Committee 1997 -1998 (Chair 1997)

Promotion and Tenure Committee – Department of Communicative Disorders Fall 1997 & Fall 2001

College of Public and Allied Health Biostatistics Review Committee (1996/1997)

University Promotion and Tenure Appeals Committee 1996/1997

College of Public and Allied Health Curriculum Committee 1997/1998

Graduate Council 1997 – 2005 (Graduate Curriculum Subcommittee)

Telecommunications/Networking Technology Subcommittee, 1997 – Present (Chair 2002 – 2005)

Office of Information Technology - Technical Director, Manager Systems, Manager Telecommunications, System Analyst Search Committee (Spring & Summer 2003)

Tennessee Public Health Institute Academic Affairs Committee 2003

ETSU Radiation Safety Committee 2008 – Present, Chair 2008 – Present

ETSU Academic Portfolio Review Committee 2014

Promotion and Tenure External Reviewer ETSU College of Pharmacy Fall 2016

**COMMUNITY  
SERVICE:**

Scientist Pen Pal for the Cumberland Museum of Science - Science by Mail Program.

Science Fair project advisor to several local students.

Seminar League of Women Voters - Ground water contamination in Northeast Tennessee - May and June 1990.

Invited Talk - Elizabethton Tennessee Junior Women's Club Environmental problems in Northeast Tennessee - October 1990

Invited Talk – Monday Club of Johnson City. Water Quality Issues in Northeast Tennessee.

Boone Lake Watershed Partnership. Sponsored by Tennessee Valley Authority. 1995 – Current

State of Tennessee Natural Areas Program Advisory Board. 1997-2000

Organizing committee Mosquito Abatement Workshop March 12, 1997, Presented by Tennessee Valley Authority, City of Johnson City, and ETSU Department of Environmental Health

Resource person for the Science, Medicine, and Technology Sub-Committee Tennessee-Virginia Economic Summit Spring 1998

Member of the Johnson City/Washington County Hazardous Materials Response Team. 1998-2012 Team Leader. 2000 - 2002, Safety Officer 2004 – 2012

Carter County Local Emergency Planning Committee 2002

Northeast Tennessee Regional Emergency Planning Committee 2002 – Present

Southeastern Region HAZUS users group 2003

Science Advisor Earth & Sky Radio Series 2002 – 2003

Executive Organizing Committee Tennessee Environmental Conference 2005 – Present,

#### **PROFESSIONAL SERVICE:**

Tennessee Department of Transportation Environmental Advisory Group. May 1994 - May 1996.

U.S. Geological Survey, National Water-Quality Assessment (NAWQA) Program, Upper Tennessee River (UTEN) Basin Study Unit Liaison Committee

Member of Oak Ridge National Laboratory Environmental Health Research Initiative Advisory Panel August 16 – 18, 2000

Session Chair: 2000 Annual Meeting Society of Environmental Toxicology and Chemistry, Nashville, TN.

Short Course Instructor: Job Search and Interviewing Skills for Students 2001, 2002, and 2003 Annual Meeting Society of Environmental Toxicology and Chemistry.

External Promotion and Tenure Reviewer

American University of Beirut

University of Toledo

University of Tennessee Knoxville

Old Dominion University

#### **REVIEW OF PROPOSALS:**

Peer Reviewer. United States Environmental Protection Agency, Office of Exploratory Research, Environmental Research Centers (ERC) Program. Water Ecology Panel. 1991.

Center for Analysis of Environmental Change, Oregon State University, January 1992.

University of Puerto Rico Sea Grant College Program, November 1993

United States Environmental Protection Agency/United States Geological Survey – Interagency Agreement Statement of Work, March/April 2004

**REVIEW OF MANUSCRIPTS:**

Microbial Ecology

Proceedings of First International Conference on Constructed Wetlands for Wastewater Treatment

Environmental Toxicology and Water Quality

ASTM - Symposium on Risk Assessments at Federal Super Fund Sites

Lewis Publishers, Review of Environmental Toxicology by Landis and Hu.

International Association on Water Quality, IAWQ 17th Biennial International Conference Budapest

Environmental Toxicology and Chemistry

Journal of Industrial Microbiology

WCB/McGraw-Hill Review of Microbiology, Third Edition, by Prescott, L.M., Harley, J.P., and Klein, D.A.

Brooks/Cole Publishing Company. Review of prospectus for Aquatic Ecology a Mechanistic Approach

Journal American Water Resources Association

Environmental Science & Technology

Journal of Parasitology

Journal of Toxicology and Environmental Health

New Zealand Journal of Marine and Freshwater Research

Ecotoxicology and Environmental Safety

Bioresource Technology

Water Environment Research

Cogent Chemistry

Environmental Pollution

**PROFESSIONAL**

**SOCIETIES:** Sigma Xi.  
American Society for Microbiology.  
Soil Science Society of America

**GRADUATE STUDENTS:**

**PhD** Kimberlee Hall  
**CHAIR:** Lok Pokhrel  
Christopher Green  
Dennis Gilfillan

<b>MS THESIS:</b>	Shankar Char	Marisse Morelos
	Kebede Faris	Laura Pascal
	Dennis Green	Crystal Peery
	Michael Hall	Sissay Wondimagegn
	Michael Juscus	Samantha Dye
	Jim Leach	Dawn Connell
	Abraham Maekele	Bernard Phifer
	Burt Main	Karen Clossey
	Melony Mckenzie	Abigael Newton
	Charlette Clark	Sarah Allen
	Ralitsa Borisova	

**MS THESIS**

<b>CHAIR:</b>	Ellen Barrett	Steve Piontkowski	Quijie (Judy) Zhao
	Julie Bartula	Gina Price	Clara McClure
	Timothy E. Black	Johnny Richardson	Reem Tariq
	Beverly Brown	Rebecca Robinson	
	Jason Case	Jeff Sams	
	Kim Chapman	Stacey Swiger	
	Richard Collins	April Walls	
	Chris Craig	Amy Welch	
	Sharon Cregger	Sarah Wilmet	
	Mike Eckels	Robert Winstead	
	Kevin Hamilton	Vickie Wolfe	
	Lin Jian	Alan Zaslow	
	Mark Kelty	Iman Zibdeh	
	Chris Knight	Bettina Ziegler	
	Cathy Landy	Chuck Garten	
	April Lane	Joe Laco	
	Glenn Lewis	L. Suzanne Southerland	
	Jim Napier	Trent Lecoultre	
	Douglas Dulaney	Danette Haywood	
	Maria Floresquerra	Steve Field	

## MS NON-THESIS

**CHAIRMAN:** Brian Cagle Deanna Riffey  
Shuguang Gu Mack McGhee  
Marsha Morgan Brent Ziegler  
Michelle Nichols Jennifer Bannister

## Undergraduate Honors-in-Discipline

Carly Manning  
Kimberly Araujo  
Elizabeth Morgan  
Amanda Mize

## POST DOCTORAL RESEARCH ASSOCIATES

Dr. Nabil Abdulla  
Dr. Saebom Ko

## HONORS

**RECEIVED:** Presidential Recognition for Outstanding Service to the University of Florida  
Outstanding Young Men in America 1982 and 1987.  
Epsilon Nu Eta - National Environmental Health Honor Society  
College of Public and Allied Health Foundation Teaching Award for 1996  
College of Public and Allied Health Foundation Service Award for 2002  
College of Public and Allied Health Foundation Research Award 2006

## CONTRACTS AND GRANTS:

Bluff City - Bristol Boone Reservoir Water Quality Management Program. 8-15-86 to 8-15-88  
\$30,000  
East Tennessee State University - Quillen-Dishner College of Medicine. Heavy Metal Trace in  
Water Distribution System. (1987) \$1055.  
East Tennessee State University Research Development Committee. Fate of Novel Bacteria in  
Aquatic Systems (1987/1988) \$1800  
City of Sevierville, Tennessee - Screening for the Presence of *Giardia lamblia* in Water Samples  
from the City of Sevierville, Tennessee, 8-22-86 to 10-1-86. \$1200  
Veterans Administration Medical Center, Mountain Home Tennessee, Heavy Metal Trace in  
Water Distribution System. 1988 - present \$1055/yr  
City of Elizabethton Tennessee, Analysis of Industrial Effluents for Heavy Metals, 1987-1988  
\$15,860.  
Iodent Company, Phenol and COD reduction in Industrial Wastewater 1986-1988 (\$24,000).

City of Bristol Tennessee. Bacteriological Study of Municipal Runoff into Beaver Creek. 1989. \$3000

U.S. Environmental Protection Agency, Enhancement of *in situ* Biodegradation and Toxicity Reduction in Creosote Contaminated Soils and Sediments. ID No. R-816135-01-0 October 1989 - October 1991, \$138,296, Guy R. Lanza Co-PI.

University of Tennessee Transportation Center and the Tennessee Department of Transportation. Water Quality Monitoring on I-181 Construction, Unicoi County, State Project Number 86002-1240-04 February 23, 1990 - July 31, 1993. \$191,059.22.

University of Tennessee Transportation Center and the Tennessee Department of Transportation. Extended Water Quality Monitoring on I-181 Construction, Unicoi County, State Project Number 86002-1240-04 CUT 015 April 5, 1991 - July 31, 1997. \$945,000.97.

University of Tennessee Transportation Center and the Tennessee Department of Transportation. Water Quality Monitoring on the Doe River, State route 37 From Hampton to Valley Forge Carter County, State Project Number 10003-3240-14 May 20, 1991 - May 19, 1998. \$143,572.49.

Westmoreland Coal Company, Big Stone Gap Virginia. Determination of biodegradability of longwall mining emulsion (LWM-18) and development of a treatment method. August 1, 1993 - June 30, 1994 \$25,584.33

Camp Dresser & McKee Inc. Orlando Florida. Enteric Virus and Protozoan (*Giardia* and *Cryptosporidium*) Assays for City of West Palm Beach AWT/Constructed Wetlands Demonstration Project. March 15, 1996 - June 30, 1997. \$18,625

Tennessee Valley Authority. Undergraduate Research Experience with Tennessee Valley Authority: Water Quality of Recreational Areas in the Holston Basin. August 1995 to present. \$27,000

First Tennessee Development District. Boone Watershed Quality Assessment. January 1998 – December 1998. \$43,319.25

American Red Cross. Bioaerosol Survey. October 2002 – December 2002. \$1500.00

Tennessee Valley Authority. Issues of the Environment Symposium Perspectives on Nutrients in Aquatic Ecosystems Kurt Maier Co-PI \$14,000

Town of Jonesborough, TN - E.coli & water chemistry analyses, Little Limestone Creek, Jonesborough Town Limits 2013 - \$8418.00

Washington County, TN - MS4 Project: E.coli and Siltation for Specific Streams in the Nolichucky Watershed 2014 – 2015 - \$18,121

Washington County, TN - Concentration of *E.coli* in Possum Creek, and for Degree of Siltation in Cedar Creek, Ford Creek and Possum Creek in the South Fork of the Holston River Watershed in Washington County, TN 2015 - 2016 \$21,948

**CONSULTING:** Vincent Sikora, of Pectol and Associates. Provided review of environmental monitoring data and risk assessment of groundwater data.



Westmoreland Coal Company, provided review of design of mine drainage treatment systems including constructed wetland systems.

Bristol-Bluff City Utility District. Biological Survey of the Holston River for two endangered Mollusk species within one-mile radius of proposed water treatment discharge.

Mr. Joe May, Provided advice on groundwater contamination by septic tanks

City of Johnson City Tennessee – Technical Advice on various water quality issues

### PUBLICATIONS

(**Boldface** - former or Current ETSU Graduate Students; **Bold Italic** - former or Current ETSU Undergraduate Students)

#### Refereed Publications:

Scheuerman, P.R., G. Bitton, A.R. Overman, and G.E. Gifford. 1979. Retention of viruses by organic soils and sediments. J. Env. Eng. Div. ASCE EE4:629-640.

Pancorbo, O.C., P.R. Scheuerman, S.R. Farrah, and G. Bitton. 1981. Effect of sludge type on Poliovirus association with and recovery from sludge solids. Can. J. Microbiol. 27:279-287.

Farrah, S.R., P.R. Scheuerman, and G. Bitton. 1981. Urea-lysine method for recovery of enteroviruses from sludge. Appl. Environ. Microbiol. 41:455-458.

Crisman, T.L., P. Scheuerman, R.W. Bienert, J.R. Beaver, and J.A. Bays. 1984. A preliminary characterization of bacterioplankton seasonality in subtropical Florida lakes. Ver. int. ver. Limnol. 22:620-626.

Farrah, S. R., P. R. Scheuerman, R. D. Eubanks, and G. Bitton. 1985. Bacteria and viruses in aerobically digested sludge: Influence of physical and chemical treatments on survival and association with flocs under laboratory conditions," Water Science and Technology, vol. 17, pp. 165-174.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1986. Development of a method for the recovery of enteroviruses from aerobically digested wastewater sludges. Water Res. 20:15-19.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1987. Reduction of microbial indicators and viruses in a cypress strand. Wat. Sci. Tech. 19:539-546.

Scheuerman, P.R., J.P. Schmidt, and M. Alexander. 1988. Factors affecting the survival and growth of bacteria introduced into lake water. Arch. Microbiol. 150:320-325.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1991. Laboratory studies of virus survival during aerobic and anaerobic digestion of sewage sludge. Water Res. 25:241-245.

**Morgan, M.**, P. Scheuerman, C. Bishop, and R. Pyles. 1996. The teratogenic potential of atrazine and 2,4-D using FETAX. J. Toxicol and Environ Health. 48:151-168.

**Chapman, K.K.**, M.J. Benton, R.O., Brinkhurst, and P.R. Scheuerman. 1999. Use of the aquatic oligochaetes *Lumbriculus variegatus* and *Tubifex tubifex* for assessing the toxicity of copper and cadmium in spiked-sediment toxicity bioassay. Environ. Toxicol. 14(2):271-278

**Fisher, Suzanne**, N. S. Nicholas, and Phillip R. Scheuerman. 2002 "Dendrochemical analysis of lead and calcium in southern Appalachian American beech." *Journal of environmental quality* 31(4): 1137-1145

**Pokhrel, L.R.**, B Dubey, and P.R. Scheuerman. 2011. Pharmaceuticals in the aquatic environment: A critical appraisal of uncertainty and knowledge gaps in human health risk assessment. *NESAJ PATRA* 8(1): 4-13.

**Pokhrel LR, Silva T**, Dubey B, El Badawy AM, Tolaymat TM, Scheuerman PR. [Rapid screening of aquatic toxicity of several metal-based nanoparticles using the MetPLATE™ bioassay](#). *Sci Total Environ*. 2012 Jun 1;426:414-22. doi: 10.1016/j.scitotenv.2012.03.049. Epub 2012 Apr 20. PubMed PMID: 22521164.

**Pokhrel, L. R.**, P. R. Scheuerman, and B. Dubey. 2013 "Evaluation of Experimental Design Options in Environmental Nano-Science Research." *Expert Opin Environ Biol* 2 (1): 2.

**Pokhrel, L. R.**, Dubey, B., & Scheuerman, P. R. (2013). Impacts of Select Organic Ligands on the Colloidal Stability, Dissolution Dynamics, and Toxicity of Silver Nanoparticles. *Environmental science & technology*, 47(22), 12877-12885.

**Pokhrel, L. R.**, Dubey, B., & Scheuerman, P. R. (2014). Natural water chemistry (dissolved organic carbon, pH, and hardness) modulates colloidal stability, dissolution, and antimicrobial activity of citrate functionalized silver nanoparticles. *Environmental Science: Nano*, 1(1), 45-54.

**Hall, K. K.**, Evanshen, B. G., Maier, K. J., & Scheuerman, P. R. (2014). Application of Multivariate Statistical Methodology to Model Factors Influencing Fate and Transport of Fecal Pollution in Surface Waters. *Journal of environmental quality*, 43(1), 358-370.

**Pokhrel, L. R.**, Ettore, N., Jacobs, Z. L., Zarr, A., Weir, M. H., Scheuerman, P. R., ... & Dubey, B. (2017). Novel carbon nanotube (CNT)-based ultrasensitive sensors for trace mercury (II) detection in water: A review. *Science of The Total Environment*, 574, 1379-1388.

**O Connell B.J., Quinn M., Scheuerman P.** 2017. Risk factors of diarrheal disease among children in the East African countries of Burundi, Rwanda and Tanzania. *Global Journal of Medicine and Public Health* 6:1–8.

**Hall. K.K** and Scheuerman, P.R. 2017 Development of Multiple Regression Models to Predict Sources of Fecal Pollution. *Water Environment Research*. Accepted in Press.

#### **Presentations at State, National, and International Meetings:**

Bitton, G., P.R. Scheuerman, G.E. Gifford, and A.R. Overman. 1977. Influence of humic substances on the movement of viruses through soils. Abstract. Annual Meeting American Society for Microbiology, New Orleans, LA.

Scheuerman, P.R., and G. Bitton. 1978. Retention of viruses by organic soils. Abstract. Annual Meeting American Society for Microbiology, Las Vegas, NV.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1982. Survival of viruses during aerobic digestion of wastewater sludges. Abstract. Annual Meeting American Society for Microbiology, Atlanta, GA.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1983. Survival of bacteria and viruses during aerobic digestion of wastewater sludges under field conditions. Abstract. Annual Meeting American Society for Microbiology, New Orleans, LA.

Scheuerman, P.R., S.R. Farrah, and G. Bitton. 1983. Differential effects of physical and chemical treatment of aerobically digested sludge on the adsorption of bacteria and viruses by the sludge flocs. Abstract. Third International Symposium on Microbial Ecology. August 7-12, 1983. Michigan State University, East Lansing, Mich.

Scheuerman, P.R., G. Bitton, S.R. Farrah, J.M. Bossart, and R.J. Dutton. 1985. Virus and bacterial survival after sewage effluent discharge into a forested wetland (cypress strand) in Waldo, FL. Abstract. Annual Meeting American Society for Microbiology, Las Vegas, Nev.

**Kelty, M.**, P. Scheuerman, and R.D. Blevins, 1987. Mutagenicity testing of commercially bottled drinking water. Presented at the 97<sup>th</sup> Meeting of the Tennessee Academy of Science.

Iglar, A.F., and P. Scheuerman. 1988. Computer aided instruction in the environmental health curricula at East Tennessee State University. Abstract. Computers in Health Sciences Symposium, November 10, 1988. Newark, New Jersey.

**Maekele, A.**, C. Bishop, and P. Scheuerman. 1988. Survival of bacteria on selected hand-contact surfaces composed of various metals. Presented at 98th Meeting of the Tennessee Academy of Science.

**Lin, J.**, and P. Scheuerman. 1989. Differential sensitivity of bacterial strains to protozoan predation in lake water. Abstract. Annual Meeting American Society for Microbiology. New Orleans, LA.

**Morelos, M.**, P. Scheuerman, and G. Gist. 1989. Antibiotic resistant bacteria isolated from German cockroaches collected from a hospital laundry facility. Abstract Annual Meeting American Society for Microbiology. New Orleans, LA.

**Cregger, S.**, D. Davis, P. Scheuerman, and M Gallagher. 1990. Development of a macrophage phagocytosis assay for immunotoxicology. Presented at 100th Meeting of the Tennessee Academy of Science.

Bishop, G.P., and P. Scheuerman. 1990. Physiological changes in bacteria during starvation stress. Presented at 100th Meeting of the Tennessee Academy of Science.

Bishop, G.P., and P. Scheuerman. 1991. Physiological changes in bacteria during starvation stress. Abstract Annual Meeting American Society for Microbiology. Dallas, Texas.

**Price-Bishop, G.P.**, and P. Scheuerman. 1992. Effects of starvation on bacteria. Abstract Annual Meeting American Society for Microbiology. New Orleans, LA.

Evanshen, B., **C. Knight, A. Zaslou**, P.R. Scheuerman, and G.R. Lanza. 1992. *In situ* degradation of m-cresol in creosote contaminated soil. Abstract Annual Meeting American Society for Microbiology. New Orleans, LA.

Lanza, G.R., and P.R. Scheuerman. 1992. *In situ* bioremediation potential at creosote contaminated sites. Presented at Ecology, Environmental Fate, Toxicology, Bioremediation symposium sponsored by SETAC-Europe. University of Potsdam and Technical University Berlin. 21-24 June 1992.

**Ziegler, B.**, P.R. Scheuerman, and G.R. Lanza. 1993. Degradation rates of *m*-Cresol Using Immobilized and Free Microbial Assemblages. Abstract Annual Meeting American Society for Microbiology, Atlanta, GA.

- Lewis, G.**, and P.R. Scheuerman. 1993. Bioremediation Potential of Creosote Constituents Using Constructed Wetlands. Abstract Annual Meeting American Society for Microbiology, Atlanta, GA.
- Cregger, S. S.** and P.R. Scheuerman. 1993. A rapid biochemical test using cell lines for measuring chemical toxicity in aquatic systems. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry. Houston, Texas.
- Craig, C.L.**, P. R. Scheuerman, G.R. Lanza, and J.L. Farris. 1993. The Effects of water quality changes due to highway construction on aquatic insects as measured by the DHA-INT Assay. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry. Houston, Texas.
- Eckels, M.A.**, P.R. Scheuerman, D.M. Johnson, and G.R. Lanza. 1993. Effects of highway construction on water quality and its influence on cadmium toxicity to Mayfly larvae. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry. Houston, Texas.
- Mckarus, J.N.**, P.R. Scheuerman, G.R. Lanza, and **M.A. Eckels**. 1994. Effects of water quality on the influence of cadmium to microbial enzyme activity. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Denver, Colorado.
- Morgan, M.**, P. Scheuerman, C. Bishop, and R. Pyles. 1994. The teratogenic potential of atrazine and 2,4-D using FETAX. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Denver, Colorado.
- Zibdeh, I. R.**, G. R. Lanza, and P. R. Scheuerman. 1995 Biodegradation of Cresol Isomers. Abstract Annual Meeting American Society for Microbiology, Washington, DC.
- Black, T.E.**, P. R. Scheuerman, and G.R. Lanza. 1995 Effects of Initial Biomass Concentration on the Degradation of the Creosote Constituent m-Cresol. Abstract Annual Meeting American Society for Microbiology, Washington, DC.
- Wolfe, V.**, P. Scheuerman, M. Gallagher, and G. R. Lanza. 1995 Effects of Nitrogen, Phosphorus, and a Vitamin Mixture on Degradation rates of cresol isomers. Abstract Annual Meeting American Society for Microbiology, Washington, DC.
- Knight, C. R.**, B. Evanshen, and P. Scheuerman. 1995 Effect of soil texture on biodegradation of creosote. Abstract Annual Meeting American Society for Microbiology, Washington, DC.
- Chapman, K.**, P. Scheuerman, G. Lanza, D Nelson, and R. Brinkhurst. 1995. Comparative Study of Three Oligochaete Species as Indicators of Metals in a Sediment Toxicity Bioassay. Abstract. Second SETAC World Congress, Vancouver, BC, Canada.
- Rhodes, C.M., T. D. Wheat, J. Mullins,** and **Samuel Payne**. 1996. Seasonal Changes of Fecal Coliforms. Tenth National Conference on Undergraduate Research. UNC Asheville, NC April 18-20 1996. P. R. Scheuerman Faculty Advisor.
- Zhao, Qiujie,** P. Scheuerman, L. J. Forrest, and Guy R. Lanza. 1996. Microbial Activity as Indicator of Wetland Function. Abstract Annual Meeting American Society for Microbiology, New Orleans, La.
- Sams, J. P.** and P. R. Scheuerman. 1996. The Effects of Biodegradation on the Toxicity of Creosote in an Artificial Soil. Abstract Annual Meeting American Society for Microbiology, New Orleans, La.
- Hamilton, K.**, and P. R. Scheuerman. 1996. Coliphages as Indicators of Fecal Pollution. Abstract Annual Meeting American Society for Microbiology, New Orleans, La.

Lanza, G. R. and P. R. Scheuerman. 1996. Effect of Soil Amendments on In Situ Biodegradation in Creosote Contaminated Soils. Presented at Emerging Technologies in Hazardous Waste Management VIII Sponsored by the American Chemical Society September 9-11 Birmingham, Alabama.

**Robinson, R.** and P. R. Scheuerman. 1996. Effect of Cadmium and Copper on Rabbit Sperm Cells. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Washington, DC.

**Richardson, J.,** P. R. Scheuerman, and M. Benton. 1996. Biosurvey of a Constructed Wetland Using a Newly Developed Treatment Wetlands Evaluation Index. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Washington, DC.

**Case, J.,** P. Scheuerman, C. Bishop, and A. Houglund. 1997. An evaluation of microbial enzyme assays as an indicator of pollution in stream sediments. Abstract Annual Meeting American Society for Microbiology, Miami Beach Fl.

**Barrett, E.,** and P. Scheuerman. 1998. The effect of cell inoculum level and substrate concentration on *p*-cresol degradation. Southern Association of Agricultural Scientists 95<sup>th</sup> Annual meeting, Little Rock, Ark. Jan. 31-Feb. 4, 1998.

**Barrett, E.,** and P. Scheuerman. 1998. Effect of Inoculum level of a freeze-dried consortium and substrate concentration on *p*-cresol degradation. Abstract Annual Meeting American Society for Microbiology, Atlanta GA.

**Swiger, J.,** P. R. Scheuerman, and P. R. Musich. 1998. Determination of potential risk associated with *Cryptosporidium* and *Giardia* in a rural water source. Abstract Annual Meeting American Society for Microbiology, Atlanta GA.

**Walls, A.** and P. R. Scheuerman. 1998. The effects of substrate concentration and cell density on the rate of degradation of *o*-cresol using a freeze-dried consortium. Abstract Annual Meeting American Society for Microbiology, Atlanta GA.

**Piontkowski, S.,** P.R. Scheuerman, and L.R. Curtis. 1998. Concentration of bacteria in groundwater and two streams in a rural community of East Tennessee. Annual meeting National Environmental Health Association.

**Landy, C.,** P. Scheuerman, L. Curtis, and T. Oppewal. 1998. Environmental education: A hands-on approach to watershed management. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Charlotte, NC.

**Napier, J.D.,** Scheuerman, P. R., and Pyles, R.A. 1998. The effect of water hardness and humic acid on the teratogenicity and toxicity of Atrazine using FETAX. Abstract Annual Meeting Society of Environmental Toxicology and Chemistry, Charlotte, NC.

**Lane, A.O.,** and Scheuerman, P.R. 1999. The use of bacteriophage, optical brighteners, and caffeine as alternative indicators for detecting the presence and source of fecal contamination. Abstract Annual Meeting American Society for Microbiology, Chicago, Ill.

**Swiger-Patterson, S., Piontkowski, S.R.,** Scheuerman, P.R. and Musich P.R., 1999. Detection of *Cryptosporidium* and *Giardia* in a rural water source. Abstract Annual Meeting American Society for Microbiology, Chicago, Ill.

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