

## Curriculum Vita

**G. Allen Burton, Jr.**

August 2007

### **Address:**

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### **Education:**

University of Texas at Dallas, M.S. 1980, Ph.D. 1984  
Major: Environmental Science (Aquatic Toxicology)  
Auburn University, M.S. 1978  
Major: Microbiology  
Ouachita Baptist University, B.S. 1976  
Majors: Biology and Chemistry

### **Experience:**

Wright State University, Department of Earth & Environmental Sciences, 2006-present.  
Department of Biological Sciences, 1987- 2006, Dayton, Ohio  
*Professor of Environmental Sciences*, Sept.1996 - present.  
*Chair*, Department of Earth & Environmental Sciences, 2006 - present.  
*Director*, Institute for Environmental Quality, 1994 - 2006.  
Interim Chair, Geological Sciences Department. October 2005 – June 2006.  
*Coordinator*, Environmental Health Sciences B.S. Degree Program, 1985-present.  
*Associate Director*, Environmental Sciences Ph.D. Program. July 2003-2005.  
*Brage Golding Distinguished Professor of Research*, 2000 – 2003.  
*Director*, Environmental Sciences Ph.D. Program. July 2002- June 2003.  
*Associate Professor*, Sept. 1990 - Aug.1996.  
*Associate Director of the Toxicant Contamination Research Program*, 1987 - 1990.  
*Assistant Professor*, Sept. 1985 - Aug. 1990.

Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder.  
*Visiting Fellow*, Aug. 1984 - Aug. 1985.

U.S. Environmental Protection Agency, Dallas, Texas  
*Life Scientist*, Nov. 1980 - Aug. 1984.

University of Texas at Dallas, Richardson, Texas  
*Teaching and Research Assistant*, Sept. 1979 - Sept. 1984.  
U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi  
Sept. 1978 - Sept. 1979  
*Microbiologist*

Auburn University, Auburn, Alabama  
Sept. 1976 - Sept. 1978  
*Teaching Assistant*

Water Research Project (Army Corps of Engineers), Ouachita Baptist University, Arkadelphia, Arkansas  
Jan. 1973 - Aug. 1976  
*Research Technician*

**Honors and Awards:**

Science Advisory Board, U.S. Environmental Protection Agency, Scientific and Technological Achievement Awards (STAA) Panel. 2006-2009.  
National Research Council Committee on Sediment Dredging at Superfund Mega-sites. 2006-2007  
Science Advisory Board, U.S. Environmental Protection Agency, Ecological Processes and Effects Committee. 2005-2008  
President, Society of Environmental Toxicology and Chemistry, 2007  
Vice-President, Society of Environmental Toxicology and Chemistry, 2006  
World Council, Society of Environmental Toxicology and Chemistry, 2003-2008.  
Brage Golding Distinguished Professor of Research, 2000-2003.  
Editorial Board, J. Brazilian Society of Ecotoxicology. 2006-present  
Editorial Advisory Board, Aquatic Ecosystem Health & Management, 2001-2006.  
Editorial Board, Chemosphere, 2003-2005.  
Co-Editor, Ecotoxicology and Environmental Restoration, 1995-2003.  
Editorial Board. Environmental Toxicology and Chemistry. 1990-1993.  
Phi Kappa Phi National Honorary Society. 2000-present.  
Phi Beta Delta International Honor Society. 2004-present.  
Pi Epsilon National Honorary Society. 2004-present  
Board of Directors, Society of Environmental Toxicology and Chemistry, 1993-1996.  
Advisory Council, The Nature Conservancy of Ohio, 1994 - 1999.  
NATO Senior Research Fellow, 1994, 1995, 1996.  
Visiting Senior Scientist, Italian Institute for Hydrobiology. 1994, 2001, 2005.  
Visiting Senior Scientist, New Zealand Institute of Water and Atmospheric Research. 1996.  
Sigma Xi, Chapter President, 1991-1992, 2000.  
First place award for oral presentation, 3rd International Symposium Toxicity Testing Using Microbial Systems, Valencia, Spain. 1987.  
CIRES Visiting Fellow. 1984-1985.

**Professional Societies:**

Society of Environmental Toxicology and Chemistry  
North American Benthological Society  
Ecological Society of America  
American Chemical Society  
American Geophysical Union  
Sigma Xi  
Phi Kappa Phi National Honorary Society  
Phi Beta Delta International Honor Society

**Professional Training:**

Hazardous Waste Operation Emergency Response Certification (OSHA 24 Hr, 29 CFR 1910.120) August 1999-2002.

**Professional Service (Not including academic service):**

Research Committee, Water Pollution Control Federation, 1981-1987.  
Sediment Toxicology Subcommittee of ASTM E-47 Committee on Biological Effects and Environmental Fate. Task Group Chairman. 1987 - 1997.  
American Society for Testing & Materials. Nominating Committee for E47 Main Committee. 1992-1995. Chair, 1995.  
American Society for Testing & Materials, Co-Chair, Task Group on Sediment Toxicity Testing Using Bioluminescent Bacteria. American Society for Testing and Materials. E47.03. 1994-1997  
Technical Advisory Committee. Stormwater Runoff Toxicity Program. Water and Hazardous Waste Treatment Division. Office of Research and Development. U.S. Environmental Protection Agency. 1989-1992.  
Ohio Nonpoint Source Monitoring Strategy Task Force. Ohio Environmental Protection Agency. 1989-1992.  
City of Dayton Environmental Advisory Board, 1990-1992.  
U.S. Environmental Protection Agency. Ecological Risk Assessment Guidelines. Case Study Workshop Leader. 1991-1992.  
U.S. Environmental Protection Agency's Workgroup on Surface and Groundwater Fate, Exposure and Effects of Manganese/MMT. 1991.  
U.S. Environmental Protection Agency. Toxicity/Chemistry Workgroup. Assessment and Remediation of Contaminated Sediments Program. 1991-1993.  
External Review Committee. Arkansas U.S. EPA/EPSCoR (Experimental Program to Stimulate Competitive Research) Program. 1992.  
Bioassay and Toxicity Test Working Group, Biomonitoring of Environmental Status and Trends (BEST) Program. U.S. Fish and Wildlife Service. 1992-1993.  
Environment Canada. Review Committee. Standard Testing Protocols for Sediment Collection and Toxicity Testing. 1992-present.  
External Review Committee. Alabama U.S. DOE/EPSCoR. 1992.  
Standard Methods for Water and Wastewater, Joint Task Group on Method 8610, Toxicity Testing with Mollusks. American Public Health Association, American Water Works Association, and Water Environment Federation. 1992-1995.  
Executive Board of Directors, Ohio Valley Regional Chapter, Society of Environmental Toxicology and Chemistry, 1989-1993.  
President-elect, Ohio Valley Regional Chapter, SETAC, 1990-1991.  
President, Ohio Valley Regional Chapter, SETAC, 1991-1992.  
Past-President, Ohio Valley Regional Chapter, SETAC, 1992-1993.  
*Ad hoc* Committee on Professional Opportunities. Society of Environmental Toxicology and Chemistry. 1991.  
Membership Committee. Society of Environmental Toxicology and Chemistry. 1989-1991.  
Editorial Board. Environmental Toxicology and Chemistry. 1990-1993.  
Program Committee for 1992 Annual Meeting. Society of Environmental Toxicology and Chemistry. Chair, Poster Sessions.  
Technical Committee, Society of Environmental Toxicology and Chemistry (SETAC). 1991-1994.  
Short Course Committee, SETAC. 1992-1995.  
*Ad Hoc* Committee on Scientific Initiatives, SETAC. 1992-1994.  
Finance Committee, SETAC. 1992-1994.  
Publications Committee, SETAC. 1992-1994.  
Long-Range Planning Committee, SETAC. 1994-1996.  
Meetings Committee, SETAC. 1994-1995.  
Chair, Regional Chapters Committee, SETAC. 1994-1995.  
Chair, SETAC *Ad hoc* International Programs Committee. 1995  
Board of Directors, SETAC. 1993-1996.  
National Environmental Health Association Accreditation Site Review Team. Eastern Kentucky University. 1993.

National Freshwater Sediment Toxicity Methods Committee, U.S. Environmental Protection Agency. 1992-2000.

External Review Panel. Environmental Biology Research Program. Exploratory Research. Office of Research and Development, U.S. Environmental Protection Agency. Washington, D.C. 1994, 1995.

Organizing Committee, 2nd International Symposium on Sediment Quality Assessment. Pallanza, Italy. 1996.

Chair, Scientific Initiatives Committee, SETAC. 1995.

Organizing Committee, Sediment Risk Assessment Workshop. A SETAC Pellston Workshop. 1994-1995.

Sediment Toxicology Editor, Quintessence Journal. 1995.

Ohio Advisory Council, The Nature Conservancy, Columbus, OH. 1994-1995.

Water Subcommittee, Chamber of Commerce, City of Dayton. 1995.

Review Panel, Chandler-Miesner Award, Journal of Great Lakes Research. 1995

Judging Panel, Tri-Service Toxicology Science Presentation. Armstrong Toxicology Laboratory, Wright Patterson Air Force Base, 1995.

Co-Editor, Ecotoxicology and Environmental Restoration. 1995-present.

OECD (Organization for Economic Co-Operation and Development) Working Group on Aquatic Testing Method Guidelines. 1995 - 1999.

Organizing Committee, Sixth SETAC-Europe Annual Meeting, Taormina, Sicily, 1996.

Co-Chair, Sub-Committee, Public Awareness, Lower Great Miami Basin Watershed Enhancement Program. 1996-1999.

Scientific Committee, International Symposium on Integrated Ecotoxicology, Milan, Italy, 1997.

Whole Effluent Toxicity Expert Advisory Training Panel. SETAC Foundation for Environmental Education. 1996 - 2000. Bald Eagle Die-Off Task Force. Arkansas Game & Fish Commission. 1996-1997.

U.S. Environmental Protection Agency Peer Review Panel. STAR Graduate Environmental Education Fellowship Program - Life Sciences - Ecology. April 1997.

U.S. Environmental Protection Agency Peer Review Panel. Aquatic Life Use Workshop Expert. Cadmus, August 1997.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, Contaminated Sediments Proposals (invitation). 1997.

Environmental Management Advisory Committee, Greene County Career Center. 1997-1998.

Task Force, Upper Illinois Waterway. Commonwealth Edison, Chicago, IL. 1994-1998.

Miami Valley Tech Prep Committee on Environmental Programs. 1996-1997.

Co-editor, Chemosphere Special Issue, Proceedings of the International Symposium on Integrated Approaches to Ecotoxicology. 1998.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, Ecological Indicators Program (invitation). 1998.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, Environmental Engineering Program (invitation). 1998.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development Exploratory Research, Environmental Biology Program. June 1998.

National Environmental Health and Protection Accreditation Council Workgroup. Las Vegas, June 1998.

Ontario Ministry of the Environment, Canada. Sediment Advisory Panel. July 1998.

Visiting Scientist. University of Sao Paulo, Sao Carlos. (invitation). 1998.

U.S. Environmental Protection Agency Peer Review Panel. National Center for Environmental Research and Quality Assurance. Office of Research and Development. EMPACT Program. (invitation). 1998.

Lake Erie Commission, Task Group on Contaminated Sediments. 1998.

Dayton Metropolitan Area Network for Education Renewal 1999 Leadership Program. Associate Leader. 1999.

Whole Effluent Toxicity Expert Advisory Toxicity Identification Evaluation Panel. SETAC Foundation for

Environmental Education. 1999 - 2001. Greene County Combined Health District's Environment 2000 Project Committee. 1999.

U.S. Environmental Protection Agency Scientific Advisory Panel. Office of Prevention, Pesticides and Toxic Substances, Office of Pesticide Programs. Washington, D.C. Feb. 1999.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, National Center for Environmental Research and Quality Assurance. Zoology Graduate Fellowships. March 1999.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, National Center for Environmental Research and Quality Assurance. STAR Research Grants Ecological Indicators Program. (invitation) May 1999.

Instituto de Ciencias Ambientales y Salud, International Committee. Buenos Aires, Argentina. 1999.

U.S. Environmental Protection Agency Peer Review Panel. Environmental Monitoring for Public Access and Community Tracking (EMPACT) Programs Metro Area Grants Peer Review. National Center for Environmental Research and Quality Assurance. (invitation). July 1999.

Environment Canada Scientific Advisory Group. Solid phase Reference Methods for Determining the Toxicity of Sediment Using Bioluminescent Bacteria (*Vibrio fischeri*). 1999-2000.

U.S. Environmental Protection Agency Federal Insecticide, Fungicide and Rodenticide Act Scientific Advisory Panel (SAP). June 1999 – 2000.

Co-Chair, Pellston Workshop on "Ecological Complexity: New Directions for Assessing Responses to Stress". Soc. Environ. Toxicol. Chem. Pellston, MI. Sept. 1999

Steering Committee, Pellston Workshop on Pore Water Toxicity Testing: biological, Chemical, and Ecological Considerations. Soc. Environ. Toxicol. Chem. Pensacola, March 2000.

National Association of State Universities and Land-Grant Colleges, Delegate to Section on Ecology. 1999-2000.

Ecotoxicity Technical Advisory Panel. Non-Ferrous Metal Industry. 1999-2005.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development, National Center for Environmental Research and Quality Assurance. Zoology Graduate Fellowships. (invitation) 2000.

U.S. Environmental Protection Agency Peer Review Panel. Office of Research and Development. EPA/NASA Environmental Indicators in the Estuarine Environment Research Program, Science to Achieve Results (STAR) Program. July 2000.

Beneficial Use Impairment Study Team. Black River NOACA. Cleveland, OH. 2000.

Steering Committee. 4<sup>th</sup> International Symposium on Sediment Quality Assessment. Otsu, Japan., Oct. 2000.

Metals Advisory Group. Society of Environmental Toxicology and Chemistry. 2000-present.

Meeting Chair. Weight-of-Evidence Workshop. Madrid, Spain. May 2000.

Meeting Chair. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Chicago, IL. 2002.

Editorial Board, Aquatic Ecosystem Health & Management, 2001-2004.

Sigma Xi Chapter President. 2001. Wright State University.

Review Panel. U.S. EPA EMPACT Metro Grants. (invite). 2001.

Review Panel. Illinois-Indiana Sea Grant Program. Chicago, IL. Aug. 2001.

Scientific Committee. 6<sup>th</sup> International Conference of the Aquatic Ecosystem Health and Management Society. Amsterdam, The Netherlands. Nov. 2001.

Review Panel. Sediment Decision Making Framework for the Great Lakes Areas of Concern. Environment Canada. Cambridge, Ontario. Nov. 2001.

Chair, Sediment- Water Interactions Group. Metals Industry. 2001-2002.

World Council, Society of Environmental Toxicology and Chemistry, 2003-2006

Editorial Board, Aquatic Ecosystem Health & Management, 2001-2004.

Editorial Board, Chemosphere, 2003-2005.

Workshop Panel. Decision Making Framework for Sediment Assessment. Environment Canada and National Water Research Institute. Cambridge, Ontario. November 2001.

Steering Committee. Pellston Workshop on Use of Sediment Quality Guidelines and Related Tools for the Assessment of Contaminated Sediments. Aug. 2002.

Council of Environmental Deans and Directors. National Council for Science and the Environment. 2001-

2005.

Steering Committee and Session Chair. Approaches to Assessing and Managing Ecological Risks at Contaminated Sediment Sites Meeting. U.S. Environmental Protection Agency and American Chemical Council. April 2002.

Peer Review Panel. U.S. Environmental Protection Agency Region 2. Bioaccumulation Testing Evaluation Framework for Dredged Materials. 2002.

IAPSO-IAHS Joint Commission on Groundwater-Seawater Interactions. 2003.

Scientific Committee, 6<sup>th</sup> International Symposium on Sediment Quality Assessment. 2004. Antwerp, Belgium.

Contaminated Sediments Committee, American Society of Civil Engineering. August 2003-present.

Review Panel. U.S. Environmental Protection Agency. Office of Research and Development. STAR Research Grants. Entomology. Feb. 2004.

Review Panel. U.S. Environmental Protection Agency. Office of Research and Development. STAR Research Grants. Ecological Risk Assessment. Feb. 2004.

Review Panel. U.S. Environmental Protection Agency Federal Insecticide, Fungicide and Rodenticide Act Scientific Advisory Panel (SAP). Aquatic Modeling. Feb. 2004. (Invited)

Peer Review Coordinator. Pellston Workshop Book "Toxicity of Dietary Metals to Aquatic Organisms". Society of Environmental Toxicology and Chemistry Press. May 2004.

Chair, Science Committee, World Council of the Society of Environmental Toxicology & Chemistry. 2003-2004.

Chair, International Programs Committee, World Council of the Society of Environmental Toxicology & Chemistry. 2004-2005.

Co-Chair, Technical Workshop on In Situ Effects Measures: Linking Responses to Ecological Consequences. Society of Environmental Toxicology and Chemistry. Troutdale, Oregon. November 2004.

Wolf Creek Focus Group. Watershed Enhancement Program. Dayton, OH. November 2004-present.

Review Panel. European Union Metal Ecological Risk Assessment Guidance. Non-Ferrous Metals Industry. 2004-2005.

Great Miami River Watershed Enhancement Program Steering Committee. 2001-2005.

Advisory Board. Greene County Career Center and Bellbrook High School Environmental Program. 2004-2005.

Chair, Session on Environmental Education. Council of Environmental Deans & Directors, Washington DC, March 2005.

International Organizing Committee. SETAC Asia/Pacific meeting. Beijing, China. September 2006.

Peer Review Panel – Private Arbitration Appellate Proceedings. Houston, TX. 2005.

Science Advisory Board, U.S. Environmental Protection Agency. 2005-2008

President, Society of Environmental Toxicology and Chemistry, 2007

Vice-President, Society of Environmental Toxicology and Chemistry, 2006

World Council, Society of Environmental Toxicology and Chemistry, 2003-2008.

National Research Council, Committee on Evaluation of the Effectiveness of Dredging at Contaminated Sediment Sites. 2006.

Chair, NIEHS Special Emphasis Panel, Innovative approaches to remediation of recalcitrant hazardous substances in sediments (R01). 2007.

Yellow Springs Instruments Foundation. Review Panel. 2007.

**Reviewer:**

Academic Press, Book. 1995.

Air Force Office of Scientific Research, Basic Research Program. 1991, 1993, 1994.

Air Force Office of Scientific Research, New Investigator Award. Society of Toxicology.(5), 1993.

American Chemical Society, Book. 1994.

American Society for Testing and Materials. 1991, 1992, 1993, 1994, May 1996.

American Society of Microbiology, Book. 1994.

Ann Arbor Press. Book outlines. 1995 (1), 1996 (3), 1997 (2).

Aquatic Ecosystem Health and Management. 1998 (3), 1999, 2000 (6), 2001 (3), 2002 (3), 2003 (2), 2004 (4), 2005.

Aquatic Toxicology 2000.

Archives of Environmental Contamination and Toxicology. 1987-1989, 1996, 1997 (5), 2000, 2005

Association of Environmental Health Academic Program Proposals. 2002 (5).

Austin Community Foundation. Proposal. 2005.

Baylor University, Promotion and Tenure Review. 2006.

Bulletin of Environmental Contamination and Toxicology. 1988-1989, 1994, 1997, 1998 (4), 2003, 2005 (2).

California Environmental Protection Agency, Laboratory Accreditation Program. Permit review. 1998.

Canadian J. Fisheries and Aquatic Sciences. 1995, 1998, 2002.

Canadian Natural Sciences & Engineering Research Council. 1997.

Canadian Social Sciences and Humanities Research Council Proposal. 2003.

CETESB manuscript, Sao Paulo, 1995.

Chapman & Hall, Book Proposal, Aug. 1995.

Chemosphere, 1998, 2001, 2003 (3), 2004, 2005 (2), 2006.

Clemson University, Tenure application. 1997.

Cleveland State University M.S. Program Proposal. Dec. 1996.

Cleveland State University, Program Planning Document. 1998.

CNR Italian Institute for the Study of Ecosystems. Manuscripts. 2004 (2). 2006 (2)

Comparative Biochemistry and Physiology. 1997, 1998.

Conservation Biology. 2001.

Continental Shelf Research. 2003.

CRC Lewis Publ., Book Chapters. 1994, 1996 (2), 2001.

CRC Press Book Review. Science and Policy: Managing Metal Contamination in Aquatic Environments. 2005

Critical Reviews in Environmental Science and Technology. 1994.

Ecotoxicology. 2000.

Ecotoxicology and Environmental Restoration. 1996 (2), 1997 (5), 1998 (5), 2000 (7)

Ecotoxicology and Environmental Safety. 2004 (2), 2005

Ecovision World Monograph Series, 1995, 2002, 2003 (3), 2005

Electrical Power Research Institute. 1989.

England Dept. of Environmental Transport and the Region report. 2000

Environment Canada, Environmental Protection Division. Biomonitoring Program Review. 1998.

Environment Canada Guidance Manuals. 1993, 1994, 1995, 1996, 2000.

Environment International. 2006.

Environmental Management 2003.

Environmental Monitoring and Assessment. 2004, 2005.

Environmental Pollution. 1998, 2001, 2004 (3), 2005, 2006.

Environmental Science and Technology. 1990, 1993, 1994, 1998, 2000, 2001, 2005 (2), 2006 (2).

Environmental Technology. 2000.

Environmental Toxicology. 2005

Environmental Toxicology and Chemistry. 1988-1994, 1995, 1996 (2), 1997 (8), 1998 (3), 1999, 2000 (4), 2001 (2), 2002 (2), 2003 (2), 2004 (3), 2006 (2), 2007.

Europe SETAC Publication, Book. 1994.

Exploratory Research Program. Office of Research and Development. U.S. Environmental Protection Agency. 1994.

EXTOXNET. Society of Environmental Toxicology and Chemistry. 1988.

Florida Dept. of Environmental Protection. Method critique. 1996.

Foundation for Research, Science and Technology. New Zealand. Proposal. 1996.

Freshwater Biology. 2005.

Human and Ecological Risk Assessment. 2002 (7), 2004.

Hydrobiologia. 1992, 2005.

ICMM and EUROMETAUX. Metal Risk Assessment Guidance Documents, Nos. 1-3, 6-8, and Background.

2004 (7).

Idaho State Board of Education. 1991, 1992, 1993.

Illinois-Indiana Sea Grant Program. Proposal. 1996, 2001 (8), 2005.

Illinois Waste Management and Research Center, Final Report. 2004.

Instituto de Radioprotecao e Dosimetria. Rio de Janeiro, Brasil. Manuscript. Jan. 1996.

Integrated Environmental Assessment and Monitoring. 2005, 2007.

International J. of Environ. Analytical Chemistry. 1997.

International Lead Zinc Research Organization. Report. 2001 (2)

J. Aquatic Ecosystem Health and Restoration. 1993, 1995, 1997 (5).

John Wiley Publisher, Book Chapters, 1996.

Journal North American Benthological Society. 1992, 2007.

Journal of Environmental Monitoring. 2004.

Journal of Environmental Sciences and Health. 1990.

Journal of Great Lakes Research. 1992, 1993, 1995 (2), 1997, 1998 (2), 2000, 2005, 2006.

Journal of the Water Pollution Control Federation. 1991.

Kentucky Water Resources Research Institute/USGS Water Resource Proposal. 1994.

Kuwait Institute for Scientific Research, Proposal to Kuwait Foundation for the Advancement of Sciences. KISR 6879. 2004.

La Trobe University, Victoria Australia. Dissertation Review. 2006.

Lewis Publishers. 1991-1993, 1994.

Limnology and Oceanography. 2003.

M.Sc. Thesis Review. University of Technology. Sydney Australia. 1997.

Marine Environment Research. 2006.

Marine Pollution Bulletin. 2002.

Michigan Dept. of Natural Resources, Great Lakes Protection Fund. 1991; 1992, 1993, 1994.

Marshall Miller & Associates. Ecological Risk Assessment Report. 2006

National Academy of Science, Report. 2000.

National Biological Service, Midwest Science Center. 1993, 1994, 1995, 1997.

National Institute of Environmental Health, Basic Superfund Research Program Proposals. 2007 (3).

National Oceanic and Atmospheric Administration Sea Grant Program. 1991.

National Oceanic and Atmospheric Administration, National Estuarine Research Reserve System Program. 1993.

National Oceanic and Atmospheric Administration. Great Lakes Environmental Research Laboratory. Chapter. 1993.

National Oceanic and Atmospheric Administration. Proposal. 2002.

National Oceanic and Atmospheric Program. Great Lakes Environmental Research Laboratory. Manuscript. 1993.

National Oceanic and Atmospheric Administration, Center for Sponsored Coastal Ocean Research. Proposal.

2006

National Research Council Book on Bioavailability. 2002.

National Research Council, Collaboration in Basic Science and Engineering Program. 1993 (2), 1994.

National Research Council, Cooperation in Applied Science & Technology Program with Newly Independent States. 1993, 2000.

National Research Council. 1996, 2000. 2006.

New Jersey Marine Sciences Consortium, Conference on Dredged Material Management, Manuscripts. 2001 (2).

New Mexico Water Resources Research Institute Grants Program, 1995, 1996.

New Zealand Foundation for Research, Science and Technology Antarctic Research Funding Program. 1997, 1998 (2).

New Zealand Foundation for Research, Science and Technology Program 1997 (2)

NIH Minority Biomedical Research Support Program. 1995

OECD (Organization of Economic Cooperation and Development) Guidance Document 1995, 1997.

Ohio State University. Promotion Application. 2002.

Ontario Ministry of Environment. Draft report. 1998.

Organization for European Cooperative Development (OECD), Guidance Manuals. 1994, 1995, 1997.

Portuguese Science and Technology Foundation Proposal. 2001.

Regulatory Toxicology and Pharmacology. 1997.

RIVM Strategic Research Program Proposal. Bilthoven, the Netherlands. 2006.

Science of the Total Environment. 2005, 2006 (2), 2007 (2).

Small-scale Freshwater Environment Toxicity Test Methods. Chapter. Kluwer Academic Publ. 2004.

Soc. Environ. Toxicol. Chem. Foundation. Pellston Chapters. 1995, 1996, 2000 (9), 2001 (11)

Society of Environmental Toxicology and Chemistry Pellston Draft Chapters. 2002 (2)

Society of Environmental Toxicology and Chemistry, Special Publications. 1993, 2000.

Society of Environmental Toxicology and Chemistry (Manuals). 1998, 2000.

Society of Environmental Toxicology and Chemistry In Situ Effects Technical Workshop Proceedings. Draft Chapters 1-6. 2004.

Society of Environmental Toxicology and Chemistry Pharmaceuticals in the Environment Pellston Draft Chapters 1-9. 2004.

South Carolina Agriculture and Forestry Research System. Proposal. 1996.

South Carolina Sea Grant Consortium. Proposal. 2005.

South Carolina Water Resources Institute Proposal. 2003.

State of Arkansas Mercury Task Force Reports. 1994, 1995.

Taylor Francis Publishers, Chapter, 1995.

The American Biology Teacher. 1997.

U.S. Army Corps of Engineers, Waterways Experiment Station, Environmental Lab. Report. 1993. Manuscript. 1994.

U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union, Basic Research and Higher Education Program. Proposal. 2001.

U.S. Coast Guard Report, 1995.

U.S. Dept. of Agriculture. National Research Initiative Competitive Grants Program, Cooperative State Research Service. 1993, 1994, 1995, 1997.

U.S. Dept. of Defense. SERDP Proposals. 2003 (5)

U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL. Proposals . 1992 (3).

U.S. Environmental Protection Agency. Office of Science & Technology. 1992, 1994 (3), 1997, 1998, 2000 (2).

U.S. Environmental Protection Agency/Soc. Environ. Toxicol. Chem. WET Short Course Training Manual. 1998.

U.S. EPA Environ. Research Laboratory. Duluth, MN. Draft Sediment Toxicity Guidance. 1995.

U.S. EPA Region II. Proposals for Burlington Harbor Sediment Contaminant Assessment 1996 (4).

U.S. EPA, Environ. Research Laboratory. Manuscript. 1995.

U.S. EPA, Office of Research and Development. Cincinnati. Draft manuscript. 1996.

U.S. Environmental Protection Agency. Superfund Office. Guidelines for Ecological Risk Assessments. 1991, 1992.

U.S. Environmental Protection Agency. Office of Research and Development. Duluth Environmental Research Laboratory and Hatfield Marine Science Center (Narragansett ERL). Guidance Manuals, Manuscripts. 1989, 1991, 1992, 1993, 1997.

U.S. Environmental Protection Agency, Great Lakes National Program Office, Assessment and Remediation of Contaminated Sediments Program. 1994, and Lake Michigan Mass Balance and Budget Program. 1993.

U.S. EPA. Scientific and Technological Achievement Awards. Science Advisory Board Panel. 13 proposals in 2006; 26 in 2007.

U.S. EPA. STAR Graduate Fellowship Peer Review Panels: Entomology Panel. 2004 (14); Ecological Risk Assessment Panel. 2004 (9).

U.S. EPA. EcoUpdate publication on Groundwater-Surface water interactions. 2005.

U.S. EPA. National Exposure Res. Lab., Cincinnati, OH. Manuscript review. 2007.

U.S. Fish & Wildlife Service, National Fisheries Contaminant Research Center. 1990, 1991, 1993.  
 U.S. Geological Survey/National Institute of Water Research Competitive Grants Program. 2001 (2).  
 U.S. Geological Survey. Midwest Research Center. Manuscript. 1996.  
 U.S. Geological Survey. Universities Council on Water Resource Proposals. 1989, 1990, 1991(3), 1992, 1994, 1995, 1997, 1998, 2000 (3).  
 U.S. Navy, SPAWAR Systems Center. Storm water toxicity evaluation report. 2006.  
 University of Alabama @ Birmingham. Dept. of Civil and Environmental Engineering. Promotion to Professor Review. 1998.  
 University of Alabama at Birmingham. Promotion review. 1998.  
 University of Florida. Promotion and tenure review. 2006.  
 University of Joensuu, Ecotoxicology Faculty Candidate Referee. Joensuu, Finland. 1995.  
 University of Joensuu, Dept. of Biology, Manuscript. 1997.  
 Univ. of Massachusetts Amherst, Promotion review. 2000  
 University of Memphis. Tenure and Promotion review. 1998.  
 University of North Texas, Tenure Application. 1993, Professor Promotion 1997.  
 University of North Texas. Tenure Application. 2005.  
 University of Stirling. External Examiner for R.A. McWilliam. Ph.D. Candidate. Stirling, Scotland.  
 University of Technology Sydney. M.Sc. Thesis Review, P. Marshman. 2006.  
 University of Vermont, School of Natural Resources. Tenure review. 1996.  
 Urban Habitats. 2004.  
 Versar, Inc. Review of USEPA Weight of Evidence Policy. 2006.  
 Water Quality Research J of Canada. 2005, 2007  
 Water Research Centre, England. Report. 2001.  
 Water Research, 1995 (2), 1998, 2004.  
 Water Science & Technology. 1993, 1994.  
 Water, Air, Soil Pollution. 1991, 1996.  
 Wetlands Ecology and Management. 2000.  
 Wetlands. 1997.  
 Wisconsin Department of Natural Resources. Sediment Management and Remediation Techniques Program. 1993.  
 Youngstown State University M.S. Degree in Environmental Studies Proposal. 2001.

**Consulting:** *(specific projects in grant and contract section)*

SnCorp. Dallas, Texas. 1981-1983.  
 U.S. Army Corps of Engineers. Vicksburg, MS. 1982.  
 Mead Corporation, Dayton, OH. 1988, 1990-1991.  
 Trout Unlimited, Mad River Chapter, Dayton, OH. 1988.  
 Malcolm Pirnie, Inc., Columbus, OH. 1989-1991.  
 Mid-American Waste Management, Canal Winchester, OH. 1990-1991.  
 Northwest Regional Planning Commission, Spooner, WI. 1991.  
 Foster Wheeler Enviresponse, Inc., Edison, NJ. 1991-1992.  
 Eastern Research Group, Inc., Arlington, MA. 1991-1992.  
 ABB Environmental Services, Inc., Chapel Hill, NC. 1991.  
 Roy F. Weston, Inc., 1991, 1998-2001.  
 NCR Corp, Dayton, OH. 1992-1994.  
 Red Hill Farm Trust. 1992-1994.  
 Tetra Tech, Inc. 1992-2001.  
 U.S. Environmental Protection Agency, Office of Science & Technology. 1992.  
 Science Applications International Corporation (SAIC). 1993, 1999, 2000.  
 Research and Evaluation Associates, Inc. 1993.  
 U.S. Dept. of Justice. 1993-1995 (1), 1996 (1), 1997-1998 (2), 1999 (1).  
 Microbics Corp. 1994-1996.  
 Versar Corp. 1994, 2001.

Commonwealth Edison. 1994-1999.  
 Science and Policy Associates, Inc. 1994.  
 ChemRisk, McLaren/Hart Environ. Engineering, 1996-1998.  
 Water Research Centre, Ltd., England. 1996.  
 National Environmental Law Center. Boston. 1996-1997.  
 Environment Canada, Natural Resources. CANMET Program. 1997-1998.  
 Environment Canada, Environmental Protection Division. 1998.  
 U.S. Environmental Protection Agency, Office of Pesticides Programs. 1999.  
 U.S. Environmental Protection Agency, Office of Research & Development. 1998-1999, 2002.  
 USInfrastructure, Inc. 2000.  
 Ecotoxicity Technical Advisory Panel. Non-Ferrous Metal Industry. 1999-2007.  
 International Lead and Zinc Research Organization. 1999-2003.  
 Beckman, Kelly & Smith. 2000-2001, 2003.  
 Warner Norcross & Judd. 2001.  
 Menzie-Cura & Associates. 2001.  
 Battelle Corp. 2001-2004.  
 Nickel Producers Environmental Research Association. 2003-2007.  
 Hydrogeologic Inc. 2003.  
 RioTinto, Inc. 2003, 2005-2007.  
 Midwest Generation EME, LLC. 2003-2004.  
 International Council of Mining and Metals. 2004-2007.  
 Copper Development Association. 2005-2007.  
 GBB, OCC, and ISKM Parties. 2005  
 Windward Environmental. 2005.  
 U.S. Navy, SPAWAR Center, San Diego. 2006.  
 Marshall Miller & Associates. Ecological Risk Assessment Report. 2006  
 Petrobras. 2006.  
 Versar, Inc. 2006.  
 International Zinc Association. 2007.

### **Research Grant and Contract Awards:**

WSU, Research Incentive. Surrogate Indicators of Environmental Toxicity. 1985-86. \$3,101.  
*1985 Funding: \$3,101.*

WSU, Research Incentive. Evaluation of Short-term Toxicity Tests in Water Quality and Hazard Assessments.  
 7/86-6/87. \$1,000.

WSU, Biomedical Seed Grant. Ecotoxicity Assays: Development and Validation. 7/87-3/88. \$777.

WSU, Research Incentive. Evaluation of Short-term Toxicity Tests in Water Quality and Hazard Assessments.  
 7/86-6/87. \$1,000.

WSU, Biomedical Seed Grant. Use of Short-term Toxicity Assays in Hazard Evaluation. 11/86-3/87. \$2,000.

WSU, Research Challenge. Evaluation of Short-term Toxicity Tests in Hazard Assessments. 6/86-5/87.  
 \$5,000.

*1986 Funding: \$9,000*

WSU, Research Challenge. Toxicant Contamination Research Program. 3/87-12/87. \$65,000.

Office of Surface Mining. Constructing Wetlands for Treatment of Acid Mine Drainage. Collaborating  
 Investigator. 1/87-6/88. \$24,000.

*1987 Funding: \$89,777*

Mead Corporation. A Toxicity Evaluation of Mead Effluent at Chillicothe, Ohio. 8/88-12/88. \$10,000.

WSU, Presidents Club Grant. Survey of Surface and Groundwater Toxicity in the Central Miami Valley. 1988. \$5,000.  
*1988 Funding: \$15,000*

WSU, Biomedical Seed Grant. Development and Validation of Aquatic Sediment Toxicity Assays. 1989. \$1,000.

U.S. Environmental Protection Agency, Office of Research and Development (via Enviresponse, Inc.). A Toxicity Survey of Storm Sewer and Combined Storm Sewer Overflows. 1989. \$4,000.

Malcolm Pirnie, Inc. Alternative Justification Program for NPDES Permit. 1989-1991. \$1,600.

U.S. Environmental Protection Agency, Great Lakes National Program Office. A Multi-Assay/Multi-Test Site Evaluation of Sediment Toxicity. 1989-1991. \$160,170.  
*1989 Funding: \$166,770*

U.S. Environmental Protection Agency, Office of Research and Development (via Enviresponse, Inc.). Assessment of Urban and Industrial Stormwater Runoff Toxicity and Evaluation/Development for Runoff Toxicity Abatement. 1990-1992. \$48,500.

WSU, Research Challenge. Sycamore Farm Research Station; Interdisciplinary Program (Ecotoxicity assessments). Co-PI. 1990. \$8,045 of \$64,998.

NCR Corporation. Corporate Health, Safety and Environmental Workshop: Hazardous Waste Operations and Emergency Response Training. 1990. \$3,500.

Microbics Corporation. Microtox Equipment Educational Grant. 1990. \$13,130.

Mid-America Waste Systems, Inc. Bioassessment of Clear Creek Below Fairfield Sanitary Landfill. 1990-1991. \$2,769.

U.S. Environmental Protection Agency, Office of Exploratory Research. Evaluation of Multiple Bioindicators and Endpoints in Stream Toxicity Assessments. Sept.1990 - August 1993. \$196,879.  
*1990 Funding: \$329,794*

U.S. Environmental Protection Agency. Evaluation of Surface and Groundwater Fate, Exposure, and Effects of Manganese/MMT. 1991. \$3,123.

U.S. Environmental Protection Agency. Current Status of Sediment Toxicity Testing. Chapter. 1991. \$2,123

Mead Corp. Environmental Advisory Council Recommendations. \$1,640. 1991.

U.S. Fish and Wildlife Service, National Fisheries Contaminant Research Center, Miscellaneous Services. 1991. \$1,500.

State of Washington, Department of Ecology. Assessing Sediment Toxicity for Criteria Development. 1991. \$3,120.

Washington Department of Ecology. Bioassessment of Creosote Contamination. 1991. \$2,400.

Atlantic States Legal Services. Sediment Toxicity Assessment in an Indiana Stream. 1991. \$1,600.

Wisconsin Northwest Regional Planning Commission. Western Lake Superior Cadmium Bioassessment. 1991. \$14,189.

U.S. Environmental Protection Agency. Ecological Risk Assessment Case Study Guidelines. 1991-1992. \$2,709.

U.S. Environmental Protection Agency, Great Lakes National Program Office. Amendment No. 1 to: A Multi-Assay/Multi-Test Site Evaluation of Sediment Toxicity. 1991-1992. \$40,334.  
*1991 Funding: \$74,879*

Tetra Tech, Inc. Effect of Combined Sewer Overflows on Receiving Water Quality. 1992. \$7,031.

Red Hill Farm Trust. An Evaluation of Habitat Quality and Benthic Macroinvertebrate Communities in Sugartree and Crab Orchard Creeks. 1992, 1993. \$6,940.

NCR Corp. Development of a Professional Environmental Curriculum. \$18,500. 1992-1993.

U.S. Environmental Protection Agency, Great Lakes National Program Office. Amendment No. 2 to: A Multi-Assay/Multi-Test Site Evaluation of Sediment Toxicity. 1992-1993. \$20,000.

Microbics Corporation. Microtox Educational Research Grant. 1992. \$7,282.

U.S. Environmental Protection Agency, Great Lakes National Program Office. Toxicity Evaluation of the Saginaw Treatability Demonstration Project. 1992. \$22,600.

U.S. Environmental Protection Agency, Environmental Research Laboratory, Duluth, MN. Subcontract via University of North Texas. Assessing the Relationship Between Ambient Toxicity and Community Responses, Evaluating Biocriteria, and Validating Candidate Freshwater Indicators of Status and Trends in Rivers. 1992.\$25,000.

Tennessee Valley Authority (subcontract from W. Carmichael, WSU), Toxicity of Cyanobacterial Strains, 1992. \$5,000.

U.S. Geological Survey. Sediment Bioassays. 1992. \$24,000.  
 1992 Funding: \$136,353

Nature Conservancy. Impact of Nonpoint Source Runoff on Hellbranch Creek. 1993-1994. \$5,000

U.S. Environmental Protection Agency, Office of Science & Technology, Washington, DC. Subcontract via SAIC. Development of Guidance for Sediment Collection, Storage, and Manipulation. January - July 1993. \$8,000.

Ohio Research Challenge Program. Assessment of Stormwater Effects on Receiving Waters.1993. \$17,500.

U.S. Department of Justice. Evaluation of sewage treatment plant effects on a river system. March, 1993 - 1995. \$69,900.

U.S. Environmental Protection Agency. Determination of the Sensitivity of *Chironomus tentans* and *Chironomus riparius* to Chemicals in Water Column and Sediment Tests. Office for Prevention, Pesticides, and Toxic Substances. Subcontract via Research and Evaluation Associates, Inc. EPA-HERD Contract No. 68-D1-0135, WA# 210.September, 1993. \$8,000.

U.S. Fish & Wildlife Service, National Fisheries Contaminant Research Center. Inter-Agency Agreement with U.S. Environmental Protection Agency. Development and Validation of Freshwater Sediment Test Methods. Subcontract. 1993-1994. \$100,000.  
 1993 Funding: \$218,500

Microbics Corp. Evaluation of the Interlaboratory Variation of the Solid-Phase Toxicity Test.1994. \$8,388.

Microbics Corp. Development of a ASTM Standard Method Protocol for Solid-Phase Toxicity Testing. 1994. \$2,400.

Metropolitan Water Reclamation District of Greater Chicago, for the U.S. Bureau of Mines. Assessing Sediment Toxicity in the North Branch Chicago River. 1994-1995. \$25,912.

Science and Policy Associates, Inc. Expert reviewer for two pesticide chemical risk studies for the U.S. Environmental Protection Agency. 1994. \$2,700.

Tetra Tech, Corp. U.S. EPA National Sediment Inventory. 1994. \$1,000.  
 1994 Funding: \$164,400

Microbics Corp. Evaluation of the Solid Phase Toxicity Test. 1995. \$2,463.

Commonwealth Edison Corp. Assessing Sediment Contamination in the Upper Illinois Waterway. 1994-1995. \$113,700.

Commonwealth Edison Corp. Task Force for Assessing Power Plant Effects on the Upper Illinois Waterway. Project Amendment. 1995-1996. \$59,212.

U.S. EPA. Office of Science and Technology. Evaluation of Variability in the U.S. EPA Freshwater Sediment Toxicity and Bioaccumulation Methods. 1995-1996. \$60,000.

National Council for Air and Stream Improvement. Evaluation of Variability in the U.S. EPA Sediment Toxicity and Bioaccumulation Methods. 1995-1996. \$20,000.

U.S. EPA. Office of Exploratory Research. Ecological Assessment of the Phototoxic Polycyclic Aromatic Hydrocarbon Fluoranthene in Freshwater Systems. Co-PI with J. Oris and S. Guttman. 1995-1998. \$450,000 (\$168,426 to G.A. Burton).

Cross Pointe Paper Corp. Algae Evaluation. 1995. \$6,400.

Tetra Tech Corp. U.S. EPA Issue Paper on Nonpoint Source Pollution. 1995. \$1,000.

City and County of Denver. Nonpoint Source Toxicity Assessment. 1995-1996. \$6,600.

Battelle Corp. McCormick-Baxter Project: Sediment Toxicity Assessment. 1995-1996. \$28,800.

*1995 Funding: \$367,401*

Montgomery Watson Corp., Evaluation of Combined Sewer Overflow Impacts, City of Lima. 1996. \$24,284.  
Chem-Risk. Review of aquatic ecosystem contamination study. 1996. \$3,739.  
Montgomery County Sanitary Engineering Dept. Effluent toxicity evaluation. 1996-1997. \$18,900.  
U.S. Dept. of Justice. Expert Witness. Sewage treatment impacts. 1996. \$1,200.  
U.S. Dept. of Defense STTR Program. Ecological risk evaluation of Total Petroleum Hydrocarbons. Co-PI with OpTech Corp. 1996-1997. \$100,000 (GAB - \$39,400).  
Water Research Centre, England. Subcontract on Water Environment Research Foundation grant via Environmental Technology Associates. Stormwater quality indicators. 1996-1997. \$5,000.  
Water Research Centre. Subcontract for National Rivers Authority, United Kingdom. Development of toxicity monitoring strategy. 1996. \$3,025.  
Northwest Ohio Regional Sewer District. Assessment of sediment toxicity. 1996. \$3,316.  
National Environmental Law Center. Impacts of metals on the Scioto River. 1996-1997. \$16,838.  
TetraTech. Development of U.S. EPA guidance manual on sediment collection, characterization, and manipulation for toxicological testing. 1996-1997. \$9,922.

*1996 Funding: \$147,624*

Commonwealth Edison. Ecotoxicity survey of the Upper Illinois Waterway. 1997-1998. \$109,000.  
Remediation Technologies, Inc. (RETEC). Sediment toxicity survey of Lake Washington. 1997. \$7,000.  
The Cadmus Group, Inc. U.S. EPA Aquatic Life Use Workshop Expert. 1997. \$4,283.  
U.S. Environmental Protection Agency, Great Lakes National Program Office. Assessment of sediment quality in the Black River watershed. 1997-1998. \$61,814.  
U.S. Environmental Protection Agency, Office of Exploratory Research. Sediment contamination assessment methods: validation of standardized and novel approaches. 1997-2000. \$449,499.  
U.S. Environmental Protection Agency. Use of In situ Toxicity Test Methods for Determining Contamination in Stormwater and Sediment. Multi-Regional Meeting on Water Quality Standards. 1997. \$1,000.  
Wright State University. Research Augmentation Program. Tiered Ecological Risk Assessment In Situ Technology. 1997. \$25,000.  
Wright State University. Attracting Students to WSU through Publicizing Opportunities and Strengths in the Coordinated Earth and Environmental Sciences Programs. Co-PI. 1997. \$15,000.  
Wright State University. Enhance Traditional Academic Programs - Environmental Engineering Program: A Development Strategy. Co-PI. 1997. \$16,000.  
Environmental Technology Associates (via WRc). Stormwater Quality Indicators. 1997. \$5,000.  
ChemRisk, McClaren-Hart Div. Evaluation of sediment contamination in southern Louisiana. 1997. \$3,739.  
National Environmental Law Center, Boston, MA. Evaluation of metal bioavailability in the Scioto River. 1997. \$13,289.  
TetraTech. U.S. Environmental Protection Agency's Sediment Collection, Storage, Characterization, and Manipulation for Toxicity Testing Guidance Manual. 1997. \$8,305.

*1997 Funding: \$802,929*

U.S. Dept. of Defense STTR Program, Phase 2. Ecological Risk Evaluation of Total Petroleum Hydrocarbons (via OpTech Corp). 1998-1999. \$101,793 to GAB and K. Grasman.  
U.S. Dept. of Justice. Sediment Contamination in northern Indiana. 1998. \$594.  
U.S. Dept. of Justice. Aquatic ecosystem impacts from steel mill discharges. 1998. \$11,575.  
Commonwealth Edison Corp. Impacts of thermal effluents on the Upper Illinois Waterway. 1998. \$1,052.  
Commonwealth Edison Corp. Continuous in situ toxicity monitoring. 1998. \$36,050  
U.S. Environmental Protection Agency. Office of Exploratory Research. Intraspecies genetic diversity measures of environmental impacts. 1998-2001. \$420,278. Burton Co-PI @ \$25,254.  
TetraTech. U.S. Environmental Protection Agency's Sediment Collection, Storage, Characterization, and Manipulation for Toxicity Testing Guidance Manual. 1998. \$6,935.  
Environment Canada. CANMET - Aquatic Effects Technology Evaluation Program. Technical Evaluation on

assessing aquatic ecosystems using pore waters and sediment chemistry. 1998. \$7,000.  
 Environment Canada. Water and Sediment Subgroup, Aquatic Effects Technology Evaluation Program.  
 Assessing aquatic ecosystems using pore waters and sediment chemistry. 1998. \$2,350.  
 U.S. Environmental Protection Agency. Enhancement of Environmental Communication in the Lower Great  
 Miami Basin: A Pilot Demonstration. 1999-2000. \$475,000. (Co-PI AB- \$103,637).  
 Roy F. Weston, Inc. Sediment Macroinvertebrate Toxicity Workplan and Meeting. 1998. \$5,915.  
 City of Dayton. Water Quality Project. Wolf Creek and Public Awareness Brochure. 1998-1999. \$25,216.  
 City of Dayton. Pollution Prevention Project. 1998-1999. \$50,000 (IEQ Co-PI - \$13,775).  
 Ohio Educational Telecommunications Network Commission. Water Connections Program for Grades 7-9.  
 1998-1999. \$241,072 (IEQ Co-PI - \$26,492).  
*1998 Funding: \$371,153*

Ohio Board of Regents. Treatment of TCE Contaminated Groundwater with Constructed Wetlands.  
 \$400,000 (Co-PI AB - \$35,000)  
 National Science Foundation. Under-represented and Minority Education in Biology. \$250,000 (Co-PI AB –  
 \$20,000).  
 Roy F. Weston, Inc. Sediment Macroinvertebrate Toxicity Workplans and Meetings. 1999. \$13,800.  
 U.S. Environmental Protection Agency Region I (via Roy F. Weston, Inc.) Sediment Toxicity Assessment of  
 the Lower Housatonic River. 1999. \$170,795.  
 U.S. Environmental Protection Agency Region I (via Harding Lawson Associates) Eastern Woolen Mill *In situ*  
 Toxicity Assessment. 1999. \$32,295.  
*1999 Funding: \$291,870*

U.S. Environmental Protection Agency (via Science Applications International Corporation). Review of U.S.  
 EPA Whole Effluent Toxicity Interlaboratory Study. 2000. \$3,675.  
 U.S. Environmental Protection Agency (via USInfrastructure, Inc.). Handbook for Assessing Stormwater  
 Effects on Receiving Waters. \$9,500.  
 Ecotoxicity Technical Advisory Panel Report. Non-Ferrous Metal Industry. 2000. \$3,200.  
 Nickel Producers Environmental Research Association Report. 2000. \$1,000.  
 City of Dayton. Biomonitoring of the Mad River. 2000. \$75,000.  
 Roy F. Weston, Inc. Sediment Macroinvertebrate Toxicity Reports and Meetings. 2000. \$7,138.  
 U.S. Environmental Protection Agency Region I (via Tetra Tech EM, Inc.) Ecological Risk Assessment of  
 Dick's Creek, OH. 2000-2001. \$34,861.  
 Ecotoxicity Technical Advisory Panel Reports and Reviews. Non-Ferrous Metal Industry. 2000. \$10,846.  
 Ecotoxicity Technical Advisory Panel Sediment Quality Guideline Evaluation. Non-Ferrous Metal Industry.  
 2000-2001. \$18,000.  
 TetraTech. U.S. Environmental Protection Agency's Sediment Collection, Storage, Characterization, and  
 Manipulation for Toxicity Testing Guidance Manual. 2000. \$6,000.  
 Beckman, Kelly & Smith. Ecological contamination assessment. 2000. \$2,920.  
 Lake Biwa Research Institute. Comparison of Sediment Criterions Around the World. 2000. \$10,000.  
*2000 Funding: \$182,141*

Beckman, Kelly & Smith. Ecological contamination assessment of a storage facility. 2001. \$1,762.  
 Ecotoxicity Technical Advisory Panel Weight-of-Evidence Workshop and Report. Non-Ferrous Metal  
 Industry. 2001. \$40,660.  
 Ohio Research Challenge. Classification of stream reference conditions via characterization of flow regimes  
 and identification of natural and human-related stressors. 2001. \$30,000.  
 Ecotoxicity Technical Advisory Panel Report. Non-Ferrous Metal Industry. 2001. \$6,506.  
 U.S. Environmental Protection Agency via Miami Valley Regional Planning Commission. Enhancement of  
 Environmental Communication in the Lower Great Miami Basin. Continuation of Pilot Demonstration.  
 2001. \$50,000. (Co-PI AB- \$20,300).  
 U.S. AID and Alexandria University. Water quality evaluation of Lake Maryut, Alexandria, Egypt. 2001.  
 \$20,000.

U.S. EPA (via Roy F. Weston). Sediment toxicity and bioaccumulation in macroinvertebrates in the Lower Housatonic River. 2001. \$25,300.

Versar, Inc. Review of National Sediment Inventory for U.S. EPA. 2001. \$1,200.

U.S. EPA (via Roy F. Weston). Sediment toxicity evaluation of Nyanza Superfund site. 2001. \$52,837.

Ohio Research Challenge. The use of biological assessments to evaluate reference conditions in urban watersheds: a descriptive and experiment approach. 2001. \$34,927.

RMT, Inc. Sediment Toxicity Evaluation. 2001. \$9,600.

International Lead Zinc Organization. 2001. Sediment Toxicity of Lead. \$985

U.S. Environmental Protection Agency Region I (via Tetra Tech EM, Inc.) Ecological Risk Assessment of Dick's Creek, OH. 2000-2001. \$3,800.

International Council on Metals and the Environment. Fact Sheet on Sediment Flux. Non-Ferrous Metal Industry via Parametric, Inc. 2001. \$1,000.

Menzie Cura and Associates, Inc. Assessment of the Ecological Risk of PAH Mixtures at Manufactured Gas Plants. Electrical Power Research Institute. 2001. \$5,520.

Five Rivers MetroParks. Dry Lick Run Water Quality Assessment. 2001. \$7,130.

Warner Norcross & Judd. Policy on Groundwater-Surface Water Interactions for Michigan Department of Environmental Protection. 2001. \$2,429.

American Chemical Council. A Diagnostic Approach for Identifying Biological Impairment and Dominant Stressors. 2001-2004. \$372,826

Workshop Panel. Decision Making Framework for Sediment Assessment. National Water Research Institute and Environment Canada. 2001. \$2,000.

International Lead Zinc Research Organization. Field Validation of Sediment Zinc Toxicity for European Union Zinc Risk Assessment. 2001-2003. \$139,775.

U.S. Environmental Protection Agency. Groundwater-Surface water Interaction Short Course. 2001-2002. \$10,000.

U.S. Environmental Protection Agency (via Battelle). Expert Panel for Risk Assessment of HARS in New York/New Jersey Harbor. 2001. \$6,158.

*2001 Funding: \$800,754*

Lockheed Martin, Inc. Assessing Sediment Contamination Using Non-Traditional Approaches: Training and Assistance. 2002-2003. \$50,000.

Metropolitan Water Reclamation District of Chicago. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$5,000

LimnoTech, Inc. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$5,000

U.S. Army Corps of Engineers. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$5,000

U.S. Environmental Protection Agency. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$10,000

Kennecott Utah Copper Corp. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$2,000

Rohm and Haas Co. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$1,000

Alcoa Technical Centre Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$1,000

U.S. Navy Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$5,000

International Lead Zinc Research Organization. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$2,500

BBL, Inc. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$1,000

Tetra Tech, Inc. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$1,000

Sediment Waste Management Workgroup. Support for the 5<sup>th</sup> International Symposium on Sediment Quality Assessment. 2002. \$1,000

U.S. Environmental Protection Agency. Intergovernmental Personnel Agreement. 2002-2003. \$150,000.

City of Dayton. Stormwater Quality Assessment of Wolf Creek. 2002. \$66,000.  
Ohio Research Challenge. Environmental Health Assessments Using Toxicogenomic Technologies. 2002-2003. \$30,000 (Co-PI).  
Ecotoxicity Technical Advisory Panel Report. Non-Ferrous Metal Industry. 2002. \$8,263.  
U.S. Environmental Protection Agency (via Battelle). Expert Panel for Risk Assessment of HARS in New York/New Jersey Harbor. 2002. \$13,626.  
International Lead Zinc Research Organization. Chronic Toxicity of Lead in Sediments. \$34,600. 2002-2003.  
Ohio Board of Regents 2001 Hayes Investment Fund. Consortium for Environmental and Process Technologies. 2002-2003. \$1,447,000. (AB= \$80,000).  
*2002 Funding: \$476,989*

Nickel Producers Environmental Research Association, Inc. (NiPERA). Evaluation of Nickel Effect Levels in Freshwater Sediments. 2003-2004. \$148,550.  
City of Dayton. Stormwater Quality Assessment of Wolf Creek. 2003. \$53,860.  
Midwest Generation EME, LLC. Review of the Use Attainability Assessment for the Lower Des Plaines River, IL. \$5,700.  
Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2003. \$10,087.  
Rio Tinto, Inc. (via ILZRO) Review of USEPA Metal Bioavailability Exposure White Paper. \$1125.  
Ecotoxicity Technical Advisory Panel White Paper on Sediment Toxicity Methods. International Lead Zinc Research Organization. 2003-2004. \$8,000.  
U.S. Army Corps of Engineers. Platform Presentation at Chemical Stability Workshop. San Diego. 2003. \$1,671.  
Center for Metals Research. World Unit Model Workshop. Univ. Delaware. 2003. \$448.  
Hydrogeologic Inc. U.S. Dept. of Defense STRD Proposal Reviews. 2003. \$375.  
Beckman, Kelly and Smith. Wolf Lake Terminal Case. 2003. \$350.  
Gordon Conference, National Science Foundation. Bates College, Maine. 2003. \$705.  
*2003 Funding: \$230,496*

Non-Ferrous Metals Producers Organization. Acid Volatile Sulfide Distributions in European Streams and Rivers. 2004. \$72,000.  
Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2004 \$5,016.  
U.S. Environmental Protection Agency (via Battelle). Expert Panel for Risk Assessment of HARS in New York/New Jersey Harbor. 2004 \$13,000.  
Midwest Generation EME, LLC. Review of the Use Attainability Assessment for the Lower Des Plaines River, IL. \$6,025.  
Hydrogeologic Inc. U.S. Dept. of Defense STRD Proposal Reviews. 2004. \$375.  
Sediment Ecotoxicology Short Course. University of Coimbra, Portugal. May, 1997. Approx. \$2,500.  
Beckman, Kelly and Smith. Wolf Lake Terminal Case. 2004. \$481.  
Quality Assurance Project Plans for Best Management Practices. Miami Conservancy District. 2004. \$600.  
U.S. Environmental Protection Agency. Intergovernmental Personnel Agreement with Marc Greenberg and Edison Environmental Response Team. \$197,177.  
CH2M Hill. Contract to provide in situ testing supplies. \$1,658.  
*2004 Funding: \$298,832*

U.S. Environmental Protection Agency STAR Grant Program. Defining and Predicting PCB Fluxes and Their Ecological Effects in River Systems for Risk Characterizations. March 2005- February 2008. \$325,000.  
Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2005. \$4,500.  
Metal Risk Assessment Guidance Review. International Council of Metals and Mining. Raleigh, NC. January 2005. \$3,436  
City of Dayton. Great Miami River Water Quality vs. Stormwater Inputs. 2005. \$56,382.

U.S. Environmental Protection Agency, Cooperative Research and Development Agreement. Toxicity Evaluation of Ground Water/Surface Water Interactions. EPA No. 304-04. 2005-2006. \$56,090.

Bayer CropScience and BASF. An Assessment of Fipronil Effects on Benthic Invertebrates in Freshwater Ecosystems. 2005-2006. \$325,295.

Copper Development Association, RioTinto, and International Copper Association. An Assessment of Copper Effects on Benthic Invertebrates in Freshwater Ecosystems. 2005-2007. \$80,884.

Metal Risk Assessment Guidance Review. International Council of Metals and Mining. London. May 2005. \$5,923

Visiting Senior Scientist. Italian Institute of Hydrobiology, National Research Council. Pallanza, Italy. June 18- July 2, 2005. Approx. \$1,000.

Nickel Producers Environmental Research Association. Evaluation of Nickel Effect Levels in Freshwater Sediments. Panel Meeting. July 2005. \$4,671.

Metal Risk Assessment Guidance Review and Meeting. Rio Tinto, Inc. London. June 2005. \$5,923.

GBB, OCC, and ISKM Parties. Peer Review Arbitration Panel. \$3,062. 2005.

Windward Environmental. In situ sampling of groundwaters in the Lower Duwamish Waterway. \$8,700. 2005.

Australasian Society of Ecotoxicology Annual Meeting Keynote Address. Melbourne, Australia. \$3,400. 2005. *2005 Funding: \$883,266*

RIVM, the Netherlands. Weight-of-Evidence based GIS System for Stressor Detection. QERAS Project. \$10,000. 2006.

European Copper Association. 2006. An Assessment of Copper Effects on Benthic Invertebrates in Freshwater Ecosystems, Project Amendment. \$36,575.

Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2006. \$4,500.

Non-Ferrous Metals Industry, ETAP. 2006. Critical Appraisal of Existing Methods and Proposal of Improved Procedures for Determining Sediment Ecotoxicity. Final Report. \$8,000.

Non-Ferrous Metals Industry, ETAP. 2006. MERAG Weight-of-Evidence (WoE) Fact Sheet. \$10,000

U.S. Navy, SPAWAR Center, San Diego. Stormwater toxicity study report review. \$500.

Marshall Miller & Associates. Ecological Risk Assessment Report. 2006, \$1,050.

Nickel Producers Environmental Research Association. Comparison of Nickel Sensitivity in Cultured and Field Collected *Ceriodaphnia* spp. 2006-2007. \$27,122.

Versar, Inc. Review of USEPA Report: Toxic Weighting Factor Development in Support of CWA 304(m) Planning Process. October 2006. \$2,700.

*2006 Funding: \$100,447*

Strategic Environmental Restoration and Demonstration Program (SERDP). USDOD, USDOE, USEPA. Sediment Ecosystem Assessment Protocol (SEAP): An Accurate and Integrated Weight-of-Evidence Based System. Feb 2007-Jan 2010. \$903,000.

Copper Development Association. Copper and Sediments: Defining the State-of-the-Science and Key Data Gaps. \$36,000. 2007.

International Copper Association, Dissolved Organic Carbon Dynamics in Brandenburg Pond, Ohio. \$2,700. 2007.

International Zinc Association. Zinc and Sediments: Defining the State-of-the-Science and Key Data Gaps. \$12,000. 2007.

City of Dayton. Stormwater Effects on the Mad River, Ohio. \$66,997 (\$50,000 to WSU). 2007.

Nickel Producers Environmental Research Association. Determining Realistic Sediment Toxicity Threshold Effect Levels for Freshwater Species. \$131,206. 2007-2008

Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2007. \$6,000.

*2007 Funding: \$1,157,903*

*Total Funding: \$7,316,404*

### **University Courses Taught:**

Water Quality and Treatment  
Environmental Toxicology  
Hazardous Waste Management  
Introduction to Environmental Health Sciences  
Limnology  
Risk Assessment I and II  
Assessment of Sediment Contamination  
Ecotoxicology  
Problems in Environmental Health Sciences  
Watershed Processes  
Environmental Stressor Identification  
Stream Hydrology and Ecological Interactions  
Environmental Problem Solving  
Sediment Quality Assessment  
Aquatic Ecosystems  
Aquatic Ecosystem Quality Assessment  
Water and Sediment Quality Assessment

### **Graduate Students Supervised:**

1. B.L. Stemmer. M.S. 1988. Thesis: An Evaluation of Various Effluent and Sediment Toxicity Tests.
2. K.L. Winks. M.S. 1990. Thesis: Effects of Metal Mixtures on *Pimephales promelas* Larval Growth in Water and Sediment Exposures.
3. S.D. Leibfritz-Frederick. M.S. 1990. Thesis: Toxicity of Metals to *Daphnia magna* and *Hyalella azteca* in Sediment Assays and Methodological Variables Within the Test.
4. G.N. Noel-Sasson. M.S. 1990. Thesis: Sediment Toxicity Evaluations Using *Ceriodaphnia dubia*.
5. C. Skalski. M.S. 1991. Thesis: Laboratory and *In Situ* Sediment Toxicity Evaluations Using Early Life Stages of *Pimephales promelas*.
6. R. Fisher. M.S. 1991. Thesis: Sediment Interstitial Water Toxicity Evaluations Using *Daphnia magna*.
7. J. Rawlings. M.S. 1994. Thesis: Pesticide Toxicity Alteration in Constructed Wetlands.
8. S. Ireland. M.S. 1995. Thesis: Evaluation of *In Situ* Testing in Stormwater Assessments.
9. N. Sarda. M.S. 1994. Thesis: Spatial and Temporal Heterogeneity in Sediments with Respect to Pore Water Ammonia and Toxicity of Ammonia to *Ceriodaphnia dubia* and *Hyalella azteca*.
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- Nordstrom, J.F. and G.A. Burton, Jr. 2000. In Situ vs. Laboratory Toxicity Identification Evaluations. Abstr World Congress Meet. Society of Environmental Toxicology and Chemistry – Europe. Brighton, England. (invited)
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- Nordstrom, J.F., and G.A. Burton. 2000. In situ toxicity identification evaluation (TIE) method. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Nashville, TN.
- Rowland, C. and G.A. Burton. 2000. In situ bioaccumulation of sediment associated PAHs and PCBs in the freshwater oligochaete *Lumbriculus variegatus* and amphipod *Hyaella azteca*. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Nashville, TN.
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- Burton, G.A., Jr. 2000. The role of in situ toxicity testing in sediment assessments. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Nashville, TN (invited).
- Burton, G.A., Jr., 2000. Sediment contamination methods: validation of standardized and novel approaches. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Nashville, TN.
- Greenberg, M.S., G.A. Burton, Jr., D.R. Lavoie, J.S. Gallagher, J.N. Huckins. 2000. Use of transect sampling with mini-piezometers for the characterization of groundwater-surface water interactions and ecological effects during in situ sediment toxicity testing. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Nashville, TN.

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- Landrum, P.F., Gedeon, M.L., Burton, G.A., M.S. Greenberg, C.D. Rowland. Nov. 2001. Toxicokinetics and reworking rate for *Lumbriculus variegatus* exposed to fluoranthene dosed sediment. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland.
- Burton, G.A., J. Gallagher, B. Schwab, C. Rowland, M. Greenberg, C. Irvine, J. Johnson, M. McElroy, M. Leppanen, D. Lavoie, N. Nordstrom. Nov. 2001. Sediment contamination assessment methods vs. biological concern values. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland.
- Leppanen, M., J.V.K. Kukkonen, P.F. Landrum, M.S. Greenberg, G.A. Burton. Nov. 2001. Feeding behavior as a sensitive toxicity response endpoint for *Lumbriculus variegatus* exposed to sediment-associated tetrachlorobiphenyl. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland.
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- Burton, G.A., C. Rowland, D. R. Lavoie, Nita Nordstrom, M. Greenberg. Nov. 2001. Assessment of sediment toxicity and bioaccumulation using macroinvertebrates in the Lower Housatonic River, Massachusetts. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland. (invited)
- Rowland, C.D., G.A. Burton, M. Leppanen. Nov. 2001. *In situ* bioaccumulation of sediment associated PCBs in the freshwater oligochaete *Lumbriculus variegatus*. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland. (invited)
- Greenberg, M., G. Allen Burton, M. Leppanen. Nov. 2001. Accumulation and toxicokinetics of fluoranthene and trifluralin in sediment bioassays with *Hyalella azteca* and *Lumbriculus variegatus*. . Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem., Baltimore, Maryland.
- Burton, G.A., C. Irvine, J. Johnson, R. McWilliam, J. Gallagher, B. Schwab, M. Greenberg, M. Leppanen. May 2002. Biological concern values: a simplistic and realistic assessment tool for weight-of-evidence approaches. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Europe., Vienna, Austria.
- McWilliam, R.A., G.A. Burton, C. Irvine, J. Johnson, B. Schwab. May 2002. Separating natural and anthropogenic stressors using in situ and laboratory approaches. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Europe., Vienna, Austria.

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Ristola, T., MT Leppanen, J. Johnson, and G.A. Burton. May 2002. Comparing two midge species (*Chironomus*) in sediment toxicity tests using *in situ* and laboratory exposures. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Europe., Vienna, Austria.

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Irvine, CA, Burton GA, Greenberg MS, Johnson JP. 2002. Effects of aqueous colloids on feeding and bioconcentration in *Hyalella azteca* and *Daphnia magna* exposed to fluoranthene and cadmium. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Aquatic Ecosystem Health Management Society. Chicago, IL.

Burton, GA, Irvine, CA, Johnson, JP, McWilliam RA, Greenberg MS. 2002. Using multiple lines of evidence to assess sediment quality. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Aquatic Ecosystem Health Management Society. Chicago, IL.

Burton, GA. 2002. Summary of Pellston workshop on use of sediment quality guidelines (SQGs) and related tools for the assessment of contaminated sediments. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Aquatic Ecosystem Health Management Society. Chicago, IL.

Johnson, JP, Burton, GA, Irvine, CA. 2002. The impacts of aircraft deicing fluid on Lytle Creek (Wilmington, OH) using *in situ* and laboratory approaches. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Aquatic Ecosystem Health Management Society. Chicago, IL.

Greenberg MS and Burton GA. 2002. A model of bioaccumulation in stream systems where groundwater-surface water interactions affect the bioavailability of sediment-associated contaminants. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Aquatic Ecosystem Health Management Society. Chicago, IL.

Irvine CA, Burton GA, Greenberg, MS. 2002. The influence of colloids on the toxicity of cadmium and fluoranthene to freshwater invertebrates. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Salt Lake City, UT.

Greenberg, MS, Burton GA, Leppanen MT, Schwab, BA. 2002. Bioconcentration and toxicokinetics of waterborne fluoranthene and trifluralin in *Lumbriculus variegatus* and *Hyalella azteca*. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Salt Lake City, UT.

Greenberg, MS, Burton GA. 2002. Modeling bioaccumulation in stream systems where groundwater-surface water interactions affect the bioavailability of sediment-associated contaminants. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Salt Lake City, UT.

Burton, GA, Batley, GE, Chapman, PM, Forbes VE, Smith EP, Reynoldson T, Schlegel, CE, den Besten, PJ, Bailer AJ, Green AS. 2002. Weight of evidence framework: Improving certainty in the decision-making process. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Salt Lake City, UT.

Burton, GA, Irvine, CA, Johnson, JP, McWilliam RA, Greenberg MS, Schwab, BA. 2002. Weight of evidence sediment quality assessment: Don't expect concordance... Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Salt Lake City, UT.

Burton, G.A. Jr. 2003. Field Evaluation of Sediment Zinc Risk Assessment. University of Ghent. Technical Management Committee. European Union Zinc Risk Assessment. Ghent, Belgium (invited)

Burton, G.A. Jr. 2003. Measuring Toxicity and Bioaccumulation: Linking Exposure and Effects. Sediment Chemical Stability Workshop. San Diego, CA. <http://www.sediments.org> (invited)

Burton, G.A. Jr. 2003. Field Evaluation of Sediment Zinc Risk Assessment. Zinc International Lead Zinc Research Organization. Bologna, Italy (invited)

Irvine, CA and Burton GA. 2003. Colloid influence on *D. magna* feeding and tissue residues following contaminant exposure. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Austin, TX.

Burton GA, LT Nguyen, C Janssen, R McWilliam, B Bossuyt, M Beltrami, R Baudo, A Green. 2003. Field validation of zinc effects and the SEM-AVS model: Benthic colonization and in situ toxicity. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Austin, TX.

Greenberg MS, Burton GA Jr, Landrum PF, Leppanen MT, Kukkonen JVK. 2003. Concentration-dependent desorption of fluoranthene and trifluralin from Great Lakes sediments. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Austin, TX.

Burton, G. Allen. 2003. Assessment of Ecological Impairment Associated with Sediments: Issues and Approaches. Abstr. Annual Meeting of the Latin American Society of Environ. Toxicol. Chem. Buenos Aires, Argentina. (Keynote)

Burton, GA Jr., LT Nguyen, C Janssen, R McWilliam, B Bossuyt, M Beltrami, R Baudo, A Green. 2003. Sediment Quality Assessments: Strategically Integrating Multiple Lines-of-Evidence to Improve Decision Making. Abstr. Annual Meeting of the Latin American Society of Environ. Toxicol. Chem. Buenos Aires, Argentina. (Invited)

Burton, GA Jr. 2003. Developing realistic assessment guidelines for sediment using benthic colonization and short term *in situ* responses. Abstr. Annual Meeting of the Latin American Society of Environ. Toxicol. Chem. Buenos Aires, Argentina. (Invited)

Burton, GA Jr. 2003. Environmental Sciences Curricula: Balancing Depth with Breadth. Abstr. Annual Meeting of the Latin American Society of Environ. Toxicol. Chem. Buenos Aires, Argentina. (Invited)

Sterner TR; PJ Robinson, DR Mattie, GA Burton. 2004. Preliminary analysis of algorithms predicting blood:air and tissue:blood partition coefficients from solvent partition coefficients. Abstr. Annu Meeting Soc of Toxicology.

Burton GA, K. Custer, S Geyer, LT Nguyen, C Janssen, R McWilliam, B Bossuyt, M Beltrami, R Baudo, A Green. 2004. Identification of stressor effects using *in situ* exposures of species, populations and communities. Abstr. Annu. Meet. Soc. Environ. Toxicol. Chem. Prague, Czechoslovakia. (invited)

Custer, K.W., G. Allen Burton. 2004. Use of indigenous species in field toxicity identification evaluation (TIE) chambers. Abstr. Annu. Meet. North American Benthological Society, Louisville, KY.

Rosiu, CJ, MS Greenberg, J Coles, FP Lyford, GA Burton Jr. 2004. Evaluation of impacts from discharge of contaminated ground water to the Sudbury River, Nyanza Chemical Waste Dump Superfund Site, Ashland, Massachusetts. Abstr. Joint Meeting of the AGU, CGU, SEG, EEGS. Montreal, May 2004.

Custer, K.W., G. Allen Burton. 2004. Use of indigenous species in field toxicity identification evaluation (TIE) chambers. Abstr. Annu. Meet. World Congress, Soc. Environ. Toxicol. Chem. Portland, OR.

Geyer, S. G. A. Burton. 2004. Optimization of an in situ Toxicity Identification Evaluation device. Abstr. Annu. Meet. World Congress, Soc. Environ. Toxicol. Chem. Portland, OR

Roberts AP, Oris JT, Clements WH, Burton GA. 2004. Development and field application of a molecular biomarker approach for exposure assessment. Abstr. Annu. Meet. World Congress, Soc. Environ. Toxicol. Chem. Portland, OR.

Roberts AP, Oris JT, Clements WH, Burton GA. 2005. Development and field application of a molecular biomarker approach for exposure assessment. Abstr. Annu. Meet. European Soc. Environ. Toxicol. Chem. Lille, France.

Nguyen THL, Burton GA, Janssen CR, Schlekot C. Response of benthic invertebrate community to sediment nickel toxicity. Abstr. Annu. Meet. European Soc. Environ. Toxicol. Chem. Lille France. (invited)

Burton, GA, Nguyen LTH, Roman YP, Zoetardt H, Janssen CR, Schlekot CE. Evaluation of nickel effect levels in freshwater sediments. Abstr. Annu. Meet. European Soc. Environ. Toxicol. Chem. Lille France. (invited)

Wendelyn, KL, Watters GT, Burton GA, Runkle JR. 2005. A survey of freshwater mussels (unionidae) in Twin Creek, Southwest Ohio. Freshwater Mollusk Conservation Society Symposium.

Burton, GA. 2005. Field assessment of benthic invertebrate community to sediment nickel toxicity. Nickel Environmental Risk Assessment Panel. Ghent, Belgium.

Custer KW, Burton GA. 2005. Macroinvertebrate community responses in streams using the benthic in situ Toxicity Identification Evaluation (BiTIE) chamber. Abstr. Annu. Meeting North American Benthological Society. New Orleans, LA.

Ren, J-J, Burton GA. 2006. Characterizing and predicting flux of PBT compounds between sediments and overlying waters in streams. SERDP Annual Meeting. Washington DC.

K.E. Kapo and G. A. Burton, Jr. Application of GIS-Based Weights of Evidence and Weighted Logistic Regression in a Multi-scale Watershed Assessment. Poster presentation, SETAC Europe meeting, The Hague, May 2006.

K.E. Kapo and G. Allen Burton, Jr. Eco-epidemiological analysis of Ohio (USA) rivers using GIS-based weights-of-evidence and weighted logistic regression. Poster presentation, SETAC Asia-Pacific meeting, Beijing, September 2006.

K.E. Kapo and G. Allen Burton, Jr. Eco-epidemiological analysis of Ohio (USA) rivers using Bayesian spatial analysis: comparison of biological endpoint selection in risk assessment. Poster presentation, SETAC North America meeting, Montreal, November 2006.

K.E. Kapo and G. Allen Burton, Jr. Application of GIS-Based Weights of Evidence and Weighted Logistic Regression in Eco-epidemiological analysis of monitoring data. Platform presentation, SETAC North America meeting, Montreal, November 2006.

L. Posthuma, K.E. Kapo, D. DeZwart, G. A. Burton, Jr. Cross-validation of two methods for eco-epidemiological analyses of monitoring data that show local magnitudes of impact and likely local causes of impact. Poster presentation, SETAC North America meeting, Montreal, November 2006.

Ren J, Burton GA. Defining and Predicting PCB Fluxes and Their Ecological Effects in Stream and River Systems for Risk Characterizations U.S. EPA STAR Nanotechnology Environmental Applications and GRO Progress Review Workshop. Washington DC, November 2006. (invited)

Kapo, K.E. and Burton, G.A., Jr. 2007. Application of GIS-based Weights of Evidence Approach in an Eco-epidemiological Assessment of Ohio Rivers. Poster Presentation, Fourth International Conference on Remediation of Contaminated Sediments (January 2007) Savannah, Georgia, USA. (invited)

Burton, G.A., Jr., and Custer, K. 2007. Separating Natural and Chemical Stressors in a Sediment and Stormwater Assessment of Wolf Creek, Dayton, OH. Poster Presentation, Fourth International Conference on Remediation of Contaminated Sediments (January 2007) Savannah, Georgia, USA. (invited)

Kapo KE and G. A. Burton, Jr. Complexity in Ohio land use patterns and effects on diagnostic assessment: a Tier 1 database evaluation applying the GIS-based WOE/WLR method. SETAC Europe Annual Meeting Abstracts. Porto, Portugal. May 2007 (invited).

Kapo KE and Burton GA Jr. 2007. Complexity in Ohio land use patterns and effects on diagnostic assessment; a Tier-1 database evaluation applying the GIS-based WOE/WLR method. Platform Session, SETAC Europe, Porto Portugal, May 20-24 2007.

Kapo KE and Burton GA Jr. 2007. Diagnosing land use patterns and effects applying the GIS-based WOE/WLR method. Abstr. Annual Meeting SETAC North America, Milwaukee, Nov. 2007.

Kevin W. Custer,<sup>1</sup> G.A. Burton, Jr.,<sup>1</sup> P. Anderson,<sup>1</sup> and C. Schlekot *Ceriodaphnia dubia* field and laboratory population responses to nickel concentrations in chronic toxicity tests. Abstr. Annual Meeting SETAC North America, Milwaukee, Nov. 2007.

Chadwick B, Guerrero J, Rosen G, Groves J, Smith C, Paulsen R, Burton A, Greenberg M. The Trident Probe Capabilities and Applications for Identifying and Mapping Groundwater Discharge Zones. Abstr. Annual Meeting SETAC North America, Milwaukee, Nov. 2007.

Muir, D, Burton GA and Mozur M. The Society of Environmental Toxicology and Chemistry: a forum for discussion of global chemical pollution issues. Dioxin 2007. Japan. 2007.

Burton GA, Chadwick B, Rosen G, Greenberg M. 2007. The Sediment Environmental Assessment Protocol (SEAP). SERDP Annual Meeting. Washington DC.

*Abstracts = 221*

### **Invited Lectures:**

Microbiological water quality. Annu. Meet. Am. Soc. Microbiol. St. Louis, MO. 1984.

Evaluation of short-term tests in hazard assessments. Environmental Monitoring and Support Lab. U.S. Environmental Protection Agency. Cincinnati, OH. 1986.

Environmental health and ecotoxicity testing. Annu. Meet. Southwest District Ohio Environ. Health Assoc. Dayton, Ohio. 1986.

Environmental health: academics and research. Annu. Meet. Ohio Environ. Health Assoc. Columbus, Ohio. 1987.

Effects of sediments on bacterial survival and response to metals. U.S. Environmental Protection Agency. Cincinnati, Ohio. 1987.

Field validation of *Ceriodaphnia* and microbial toxicity tests. University of Illinois, Champaign, Illinois. 1987.

Field validation of *Ceriodaphnia* and microbial toxicity tests. University of Dayton. Dayton, OH. 1988.

Assessment of aquatic toxicity: current approaches and issues. Regional Chapter, Society of Toxicology, Dayton, OH. 1988.

- Methodological effects on sediment toxicity. Center for Environ. Toxicol. Michigan State Univ. East Lansing, MI. 1989.
- Identifying contaminated sites. Hazardous Waste Symposium, Ohio Environmental Health Association. Reynoldsburg, OH. 1989.
- Multitrophic level assessments of sediment quality. National Symposium on Water Quality Assessment. U.S. Environmental Protection Agency. Colorado State University, Ft. Collins. 1989.
- Methods for determining acute and chronic sediment toxicity. Bioassay Toxicity Testing Workshop. University of Wisconsin, Milwaukee. 1990.
- An overview of sediment toxicity standards and assessments in the ASTM and ARCS programs. U.S. Environmental Protection Agency Sediment Oversight Technical Committee. USACOE Waterways Experiment Station, Vicksburg, MS. 1990.
- Validation of sediment toxicity with surrogate species. Dept. of Zoology, Miami University. Oxford, OH. 1990.
- Multitrophic level assessment of aquatic ecosystem impairment. Biological Sciences Department, Indiana-Purdue University. Ft. Wayne, IN. 1990.
- Solid phase toxicity testing. Third Annual National Superfund Environmental Evaluation Workshop. San Diego, CA. 1991.
- Evaluating aquatic toxicity with multiple bioindicators and endpoints. U.S. Environmental Protection Agency. Environmental Monitoring and Systems Laboratory, Cincinnati, OH. 1991.
- Impact of polluted sediments on freshwater macrofauna. Intern. Symposium on Ecotoxicology of Coastal, Estuarine, and Freshwater Sediments. Société d'Ecotoxicologie Fondamentale et Appliquée. La Rochelle, France. 1991.
- Assessing impacts on aquatic ecosystems. Society for Risk Analysis Annual Meeting, Ohio Chapter. Dayton, OH. 1991.
- Quality assurance issues. Effects of urban runoff on receiving systems: an interdisciplinary analysis of impact, monitoring, and management. Engineering Foundation Conference. Mt. Crested Butte, CO. 1991.
- Sampling design. Whole Sediment Toxicity Testing. Continuing Education course on Assessing and Treating Contaminated Sediment. University of Wisconsin. Madison. 1991.
- Comparative sensitivity and efficacy of sediment toxicity tests using freshwater organisms. Strengths and Weaknesses. U.S. Environmental Protection Agency Contaminated Sediment Management Strategy Tiered Testing Workgroup. Washington, DC. 1991.
- Sediment toxicity testing: current issues and research directions. U.S. Environmental Protection Agency Environmental Monitoring and Support Laboratory, Cincinnati, OH. 1992.
- Intercomparison of bioassays. Field assessments. Quality assurance/quality control (3 presentations). U.S. Environmental Protection Agency, Great Lakes National Program Office, ARCS All Work Group Meeting and RAP Workshop, Chicago, IL, 1992.
- Evaluating sediment contamination in dredging areas. 1992 National/International Environmental Dredging Symposium. Buffalo, NY.
- Options and Considerations in Assessing Sediment Contamination. How Can We Assess Sediment Quality? Assessment and Treatment of Contaminated Sediments in the North Branch Chicago River - A Model Approach for an Urban Waterway Conference. Bureau of Mines. Chicago, IL. 1992.
- Freshwater Sediment Toxicity Assays; Necessary and Desirable Attributes. U.S. Environmental Protection Agency Tiered Testing Issues for Marine and Freshwater Sediments, Workshop. Washington, D.C. 1992.
- Assessing Contamination in Freshwater Ecosystems. Department of Environmental Health. East Tennessee State University, Johnson City. 1992.
- Questions and Issues in Determining Sediment Contamination. Proctor and Gamble, Inc., Cincinnati, OH. Feb. 1993.
- Assessment of Sediment Contamination in Freshwater Ecosystems. Institute of Applied Sciences, University of North Texas, Denton, TX. Mar. 1993
- Evaluating Biological Effects of Contaminants in Freshwater Sediments. Contaminated Sediments Workshop. University of Coimbra, Coimbra, Portugal. Mar. 1993.

Toxicity Testing Procedures and Demonstrations. Managing Contaminated Sediment Course. Sponsored by U.S. Environmental Protection Agency. Univ. of Wisconsin, Madison, WI. April 1993.

Monitoring the Effects off Urban Runoff: The Coyote Creek Project. R. Pitt and G.A. Burton, Jr., National Conf. on Urban Runoff Management., Chicago, IL. April 1993.

Methods and Regulatory Issues for Assessing Sediment Contamination. Workshop on Contaminated Sediments. Companhia De Tecnologia De Saneamento Ambiental (CETESB). Sao Paulo, Brazil. Aug. 1993

Current Issues in Assessments of Sediment Contamination. Instituto de Radioprotecao e Dosimetria, Comissao Nacional de Energia Nuclear. Rio de Janeiro, Brazil. Aug. 1993.

The Environmental Sciences Program at Wright State University. Air Force Institute of Technology. Wright Patterson Air Force Base. Dayton, OH. Sept. 1993.

Environmental Sciences: Current Status and Future Developments. Environmental Science Advisory Board. WSU, Dayton, OH. Sept. 1993.

The Future of Biological Monitoring. Safety, Health, Environmental & Nursing Conference. Mead Corp. Dayton, OH. Sept. 1993.

Sediment Ecotoxicology: The U.S. Approach. Centre des Sciences de l'Environnement, Universite de Metz, France. Nov. 1993.

Toxicity and Bioaccumulation Testing. Short Course on "Assessment of Contaminated Sediment". Annu. Meet. Soc. Environ. Toxicol. Chem., Houston, TX. Nov. 1993.

Toxicity Testing Battery. Final ARCS (Assessment and Remediation of Contaminated Sediments Program) All-Hands Meeting. Great Lakes National Program Office, U.S. Environmental Protection Agency. Chicago, IL. Nov. 1993.

Beneficial Applications of In Situ Toxicity Testing in Ecosystem Assessment. Zoology Dept. University of Coimbra, Coimbra, Portugal. June 1994.

Approaches to Sediment Toxicity Assessment: Multi-Species Comparisons and In Situ Testing. Italian Institute of Hydrobiology, Verbania-Pallanza, Italy. July 1994.

Keynote Address: Critical Issues in Sediment Bioassays and Toxicity Testing. First International Symposium on Sediment Quality Assessment: Rationale, Challenges and Strategies. Goteborg, Sweden. August 1994.

Plenary Lecture: The Use of In Situ Toxicity Testing in Assessments of Aquatic Ecosystem Health. I Latin-American Symposium on Aquatic Ecosystem Health and the Ecological Significance of Bioassays. SECAO Latino-Americana (Aquatic Ecosystem Health and Management Society). Sao Carlos, Brasil. August 1994.

Health and Safety, Quality Assurance, and Variability in Freshwater Sediment Toxicity Testing. Short course on "Assessment of Contaminated Sediment". Annu. Meet. Soc. Environ. Toxicol. Chem. Denver, CO. Oct. 1994.

Commentary on Case Study - United Heckathorn Site, Richmond Harbor. Case Studies in Ecotoxicological Risk Assessments. Irvine, CA. June 1995.

Plenary Lecture: Ecotoxicology: Has It Improved the Quality of Life?. Annu. Meet. Brasilian Society of Chemistry. Caxumba, Brasil. June, 1995.

Chemistry's Complex Role in Aquatic Toxicology. Annu. Meet. Brasilian Soc. Chem., Caxumba, Brasil. June, 1995.

Managing Contaminated Sediment. University of Wisconsin Professional Development Course. Madison, WI. Oct., 1995.

Keynote Address: Evaluating Toxicity: Test Response Issues. Workshop on Toxicity Testing Applied to Soil Ecotoxicology. Canada National Research Council. Montreal, Canada. November, 1995.

Assessing Ecosystem Contamination. Refinaria Gabriel Passos (REGAP) Belo Horizonte, Minas Gerais, Brazil. Dec. 1995.

Ecosystem Contamination and the Environmental Programs at WSU. Faculty Research Colloquium. Wright State University, Dayton, OH. Feb. 1996

Assessment of Sediment Contamination: Characterization Issues. U.S. EPA, Region IV, Atlanta, GA, Mar. 1996.

Standardized Methods and Toxicity and Bioaccumulation Assay Selection. Short Course on "Understanding

Sediment Analysis and Interpretation". University of Wisconsin - Madison. Sept. 1996.

Keynote address: Assessment of contaminated sediments. Third Finnish Conference of Environmental Sciences. Jyväskylä, Finland, May 1997.

Assessing aquatic ecosystem contamination with *in situ* approaches. University of Joensuu, Joensuu, Finland. May, 1997.

Keynote address: The challenge of assessing multiple stressors in ecosystems. Congreso Mexicano De Toxicología. Mexico City. Mexico. May 1997.

Keynote address: Ecological relevance of ecotoxicology: critiques of traditional and novel approaches International Symposium on Integrated Ecotoxicology: From Molecules/Organisms to Ecosystems. Milan, Italy. June, 1997.

Current environmental research and issues in aquatic toxicology. Great Lakes Environmental Research Consortium. Wright State University. April 1997.

Standardized Methods and Toxicity and Bioaccumulation Assay Selection. Short Course on "Understanding Sediment Analysis and Interpretation". University of Wisconsin Course at University of Washington, Seattle, WA, July 1997.

Assessing Metal Bioavailability in Sediments. Short Course on "Ecologist Risk Assessment: Strategies for an Emerging Discipline". International Business Communications, Boston, MA, July 1997.

Toxicity of Oils and Chemical Countermeasures: Reality Issues. Freshwater Spills Conference. U.S. Environmental Protection Agency. St. Louis, MO. March 1998.

Watching our Food Chain. Round Table Speaker at Rotary Club, Dayton Daily News, and Kettering Medical Center Earth Day Town Meeting. Kettering, OH, April 1998.

Use of In situ Testing in Assessments of Bioavailability in Sediments. U.S. Dept. of Defense and National Environmental Policy Institute. Base Reorganization and Closure Conference. St. Louis, MO. April 1998.

Whole Effluent Toxicity Testing. Short Course Instructor. Annu. Meeting Ohio Valley Regional Chapter, Soc. Environ. Toxicol. Chem., Dayton, OH. June 1998.

Use of In situ Testing in Assessments of Bioavailability in Sediments. U.S. Dept. of Defense and National Environmental Policy Institute. Base Reorganization and Closure Conference. San Diego, CA. June 1998.

Realistic Assessments of Water Quality: Matching Exposure with Effects. International Conference on Ecology of Cities. Rhodes, Greece. June 1998.

Contaminated Sediment Toxicity in the Black River. Ohio EPA Black River Symposium. Cleveland, OH. 1998.

Standardized Methods and Toxicity and Bioaccumulation Assay Selection. Short Course on "Understanding Sediment Analysis and Interpretation". University of Wisconsin Course. Albany, NY. Oct. 1998.

Environment Canada. Water and Sediment Subgroup, Aquatic Effects Technology Evaluation Program. Assessing aquatic ecosystems using pore waters and sediment chemistry. Ottawa, Ontario, August, 1998.

Assessment Approaches and Issues in Ecological Characterizations. Ground-Water/Surface Water Interaction Workshop. U.S. EPA. Denver, CO. Jan. 1999.

Standardized Methods and Toxicity and Bioaccumulation Assay Selection. Short Course on "Understanding Sediment Analysis and Interpretation". University of Wisconsin Course. Portland, OR. Mar. 1999.

Field and laboratory methods for measuring stress. Short Course on "Ecotoxicology of Boreal Lakes". University of Joensuu, Joensuu, Finland. June 1999.

Assessing ecological effects in surface/ground water transition zones. The Conference on Remediation of Subsurface Contaminants: The Meaning and Measures of Success. National Ground Water Association Conference. Keynote invitation. November 1999.

Novel methods for assessing aquatic contamination. University of Dayton. Dayton, OH. September 1999.

Urban Sprawl from Every Angle. The Garden Club of Dayton. Dayton, OH. November 1999.

Strengths and Weaknesses of Various Approaches for Determining Sediment Background, Benchmark and Standards Values. Ohio Environmental Protection Agency. Columbus, OH. November 1999.

Teasing Out Primary Stressors in Aquatic Systems Using Stressor Identification Chambers. U.S. Environmental Protection Agency Region 10. Regional Science Council Speaker. Seattle, WA.

January 2000.

Strengths and Weaknesses of Sediment Bioassay/Toxicity Evaluations. Ohio Environmental Protection Agency. Columbus, OH. February 2000.

Sediments: Sink or Source of Metals. Ecotoxicity Technical Advisory Panel Meeting. Verona, Italy. February 2000.

Nickel in Sediments: Bioavailability Issues. Nickel Ecotoxicity Workshop. Verona, Italy. February 2000.

Confounding Factors in the use of Pore Waters for Toxicity Assessments. Plenary Presentation. Pore Water Pellston Workshop, Pensacola, FL. March 2000.

Realistic Assessments of Urban Sediments and Nonpoint Source Runoff. Contaminated Sediments 2000. Legal Institute of the Great Lakes. University of Toledo, OH. April 2000.

Realistic Assessments of Cause and Effects. 7<sup>th</sup> FECS Conference on Chemistry and the Environment. Porto, Portugal. August 2000. Keynote Address (invited).

Comparisons of Sediment Assessment Methods. ECOTOX Conference. Sao Carlos, Brazil. September 2000 (invited).

Comparisons of Sediment Quality Criteria in Use Around the World. Keynote Presentation. 4<sup>th</sup> International Symposium on Sediment Quality Assessment: Approaches, Insights and Technology for the 21<sup>st</sup> Century. Otsu, Japan. October 2000.

Effective Approaches for Site Characterization. U.S. EPA's Forum on Managing Contaminated Sediments at Hazardous Waste Sites. Alexandria, VA. May 2001.

Ecological Risk Assessment and *In Situ* Approaches. National Sediment Dialogue Conference. Hall of States, Washington, D.C. August 2001.

Traditional and Novel Assessment Methods for Determining Aquatic Ecosystem Contamination. Graduate Research Institute, Alexandria University, Cairo, Egypt. October 2001.

Critical Issues Affecting Ecological Risk Assessments: Effective Resolution. National Sediments Conference. National Environmental Policy Institute. National Press Club, Washington, DC. November 2001.

Improved Approaches for Assessing Sediment Toxicity. Blasland, Bouck & Lee, Inc. Sediment Management Seminar. Orlando, FL. Feb. 2002.

Linking Exposure and Effects in Dynamic Sediment Environments. RTDF Sediment Action Team. Silver Springs MD. Mar. 2002

Weight-of-Evidence in Sediment Quality Assessments. Keynote. Pellston Workshop on Sediment Guidelines. Fairmont Springs, Montana. Aug. 2002.

The Critical Role of Permeable Sediments in Risk Assessments of Streams. Gordon Conference. Bates College, Lewiston Maine. June 2003

Keynote address: Assessment of Ecological Impairment Associated with Sediments: Issues and Approaches. Annual Meeting of the Latin American Society of Environ. Toxicol. Chem. Buenos Aires, Argentina. October 2003.

Water Quality Assessments: Weight of Evidence Approaches. Wright State University, Biological Sciences Dept. October 2003.

Sediment Quality Assessments: Integrating Multiple Lines of Evidence. Northwestern University, Department of Civil and Environmental Engineering. January, 2004.

Assessing Stormwater Quality in Wolf Creek. Montgomery County Soil Conservation Service. Trotwood, OH. Feb. 2004.

Assessing Municipal Separate Storm Sewer System (MS4) Effects in Wolf Creek. Ohio Environmental Protection Agency. Dayton, OH. Feb. 2004.

Keynote address: Sediment Quality Assessments: Integrated Approaches with Case Examples. Asociacion Mesoamericana de Ecotoxicologia y Quimica Ambiental. Jiutepec, Morelos, Mexico. March 2004.

Integrating Multiple Lines-of-Evidence to Improve Sediment Quality Risk Assessments. Second Iowa Workshop on Contaminated Sediments. Fairport, Iowa. October, 2004.

Stressor Identification in Freshwater Ecosystems, and The Society of Environmental Toxicology & Chemistry: An Overview. VIII Brazilian Congress of Ecotoxicology. Florianopolis, SC, Brazil. October. 2004.

Short Course on Field-Based Exposure & Effects Measures. Freshwater In situ methods. World Congress of the Society of Environmental Toxicology & Chemistry. Portland, OR. November 2004.

Improving In Situ Methods and Approaches. SETAC Technical Workshop on In Situ-Based Effects Measures: Linking Responses to Ecological Consequences in Aquatic Ecosystems. Plenary Presentation. Clements and Burton. Portland OR. November 2004.

Phi Beta Delta International Forum. International Business Travel Overview. Wright State University. January 2005.

Stressor identification in freshwater ecosystems. Institute of Applied Sciences. University of North Texas. Denton, TX. February 2005.

Kapo, K and Burton GA. A Weight-of-Evidence Based GIS System for Ecosystem Assessment. Proctor & Gamble. Cincinnati, OH. March 2005.

Kapo, K and Burton GA. A Weight-of-Evidence Based GIS System for Ecosystem Assessment. U.S. Environmental Protection Agency, Office of Research & Development. Washington DC. April 2005.

Kapo, K and Burton GA. A Weight-of-Evidence Based GIS System for Ecosystem Assessment. Ohio Environmental Protection Agency. Columbus, OH. April 2005.

Plenary address: Integrated Approaches for Assessing Stormwater and Sediments and Their Role in Ecosystem Stress. Australasian Society of Ecotoxicology, Annual Meeting. Melbourne, Australia. September 2005.

Café Scientifique. Water Quality: What does it mean and what are the issues? Five Rivers MetroParks. Dayton, OH. July 2005.

Stressor Identification in Sediments. Contaminants and Ecological Risk Assessment Symposium. CSIRO. University of Adelaide, Australia. September 2005.

Evaluation of Nickel Effects in Sediments Using Field Based Approaches. CSIRO. Sydney, Australia. September 2005.

Science and Mentoring: A Tale of Two Superstars. University of North Texas Institute of Applied Sciences. October. 2005.

U.S. House of Representatives, Science Committee Hearing on Environmental Impacts of Emerging Contaminants. Regulating Emerging Contaminants. May 1, 2006

Ecotoxicology and its Paradigms: A Critical Overview. Keynote Lecture. Ecotox 2006, SETAC Brazilian Society of Ecotoxicology Biannual Meeting. Sao Paulo, Brazil, July 2006.

Stressor Identification in Aquatic Ecosystems. Wright State University Department of Earth & Environmental Sciences. September 2006.

Stressor Identification in Aquatic Ecosystems. Proctor & Gamble Co. Cincinnati, OH. September 2007.

*Invited Lectures = 119*

### **Symposia and Short Course Leader:**

Chairman, "Volatile Organic Compounds: Environmental and Human Health Significance." Annual Biomedical Sciences Program Symposium. Wright State University. May, 1989.

Co-Chairman, "Waste Water Analytical Methods and Instrumentation," Center for Groundwater Management and Environmental Health Sciences Program. Wright State University. October, 1989.

Session Chair, "Sediment Toxicity," 1990 Midwest Pollution Control Biologists Meeting. Chicago, IL. April, 1990.

Workshop Chairman, "Hazardous Waste Operations and Emergency Response." NCR World Headquarters. Dayton, OH. March, 1990.

Session Co-Chair, "The Scientific Basis Behind Environmental Quality Criteria," Annual Meeting, Society of Environmental Toxicology and Chemistry. Arlington, VA. November, 1990.

Workshop Co-Leader, "Freshwater Sediment Toxicity Testing." 1991 Midwest Pollution Control Biologists Meeting. Chicago, IL. March, 1991.

Session Chair, "Assessment of Contaminated Sediments." Annual Meeting, Society of Environmental Toxicology and Chemistry. Seattle, WA. November, 1991.

Poster Session Chair, Annual Meeting, Society of Environmental Toxicology and Chemistry, Cincinnati, OH. November, 1992.

Session Chair, "Sediment Toxicity Testing", 1st SETAC World Congress, Ecotoxicology and Environmental Chemistry - A Global Perspective. Lisbon, Portugal, March, 1993.

Session Chair, "Sediment Quality Assessments," 6th Intern. Symp. The Interactions Between Sediments and Waters. Santa Barbara, CA. December, 1993.

Session Chair, "Stormwater Runoff Effects," Annual Meeting, Society of Environmental Toxicology and Chemistry, Houston, TX. November, 1993.

Session Chair, "Irrigation and Stormwater Runoff," Annual Meeting, Society of Environmental Toxicology and Chemistry, Denver, TX. October, 1994.

Session Chair, "Effluent Variability" Pellston Workshop on Wastewater Effluent Variability, Pellston, MI, September, 1995.

Short Course Co-Chair, "Use of In situ Toxicity Testing" Annual Meeting, Society of Environmental Toxicology and Chemistry, Vancouver, BC, Canada. November, 1995.

Session Co-Chair, "Use of In situ Toxicity Testing," Annual Meeting, Society of Environmental Toxicology and Chemistry, Vancouver, BC, Canada. November, 1995.

Organizing Committee, Sediment Risk Assessment Workshop. A SETAC Pellston Workshop. 1994-1995.

Session Co-Chair, "Critical Issues in the Characterization of Sediment Contamination" Annual Meeting, Society of Environmental Toxicology and Chemistry, Washington, DC. November, 1996.

Scientific Committee, Sixth SETAC - Europe Annual Meeting, 1996. Taormina, Italy.

Scientific Committee, International Symposium on Integrated Ecotoxicology: From Molecules/Organisms to Ecosystems. 1997. Milan, Italy.

Instructor. Sediment Ecotoxicology. University of Coimbra, Portugal. May, 1997.

Short Course Co-Chair. *In situ* Field Exposures Using Transplanted Indigenous and Cultured Populations. Annu. Meet. Soc. Environ. Toxicol. Chem., 1997. San Francisco, CA.

Session Chair. U.S. Environmental Protection Agency's Ground Water Forum. Jan. 1999. Chemistry Session. Denver, CO.

Workshop Co-Chair. Assessing the Effects of Complex Stressors in Ecosystems. Soc. Environmental Toxicology and Chemistry, Pellston Workshop. Sept. 1999.

Workshop Steering Committee. Pore Water Toxicity. Soc. Environmental Toxicology and Chemistry, Pellston Workshop. March, 2000.

Steering Committee. 4<sup>th</sup> International Symposium on Sediment Quality Assessment. Otsu, Japan., Oct. 2000.

Session Chair 4<sup>th</sup> International Symposium on Sediment Quality Assessment. Otsu, Japan., Oct. 2000.

Short Course: Evaluation of Ecological Effects in Surface Water-Ground Water Transition Zones. Annu. Meeting Soc. Environ. Toxicol. Chem., Nashville, TN., Nov. 2000

Short Course: Field Methods in Water and Sediment Ecotoxicology: Theory and Practice. Mazatlan, Mexico. Feb. 2001. Sponsored by CIAD and ICMYL-UNAM.

Short Course: *In Situ* Approaches for Assessing Groundwater-Surface Water Interactions. U.S. Environmental Protection Agency RCRA National Meeting. Jan. 17, Washington, DC. 2002.

Short Course: In Situ Field Testing Using Caged Organisms: Approaches and Applications. ASTM Symposium on "Multiple Stressor Effects in Relation to Declining Amphibian Populations". Pittsburgh, PA April 16-17, 2002.

Short Course: *In Situ* Approaches for Assessing Groundwater-Surface Water Interactions. U.S. Environmental Protection Agency. National Association of Remediation Project Managers. Orlando, FL, May, 2002.

Meeting Chair. 5<sup>th</sup> International Symposium on Sediment Quality Assessment. Chicago, IL. 2002.

Steering Committee: Sediment Chemical Stability Workshop. San Diego. 2003.

Co-Chair. SETAC Technical Workshop on *In Situ*-Based Effects Measures: Linking Responses to Ecological Consequences in Aquatic Ecosystems. Portland, OR. 2004.

Co-Chair. Symposium on *In Situ*-Based Effects Measures: Linking Responses to Ecological Consequences in Aquatic Ecosystems. SETAC Annual Meeting. Portland, OR. 2004.

Chair. Platform Session on Urban Toxicology. Australasian Society of Ecotoxicology. Melbourne, Australia. September 2005.

Short Course. Ecological Risk Assessment: Theory and Practice. CIAD. Mazatlan, Mexico. July 2006.

*Chair and Short Courses= 37*