

Curriculum Vita

G. Allen Burton, Jr.

June 2016

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:

University of Michigan, Ann Arbor.
Professor, School of Natural Resources & Environment, 2008-present
Professor, Department of Earth & Environmental Sciences, 2011-present (“dry” appointment)
Distinguished Faculty Fellow, Graham Sustainability Institute, University of Michigan. 2014-2016.
Director, University of Michigan Water Center, 2012-2014
Director, Cooperative Institute for Limnology & Ecosystems Research, 2008-2016.
Environmental Toxicology & Chemistry, International Journal. Editor-in-Chief, 2012-present
Concurrent Professor, School of the Environment, University of Nanjing, China. 2014-present.
Honorary Professor, State Key Laboratory of Environmental Criteria and Risk Assessment, Beijing China. 2014-present.

Wright State University, Department of Earth & Environmental Sciences, 2006-2008.
Department of Biological Sciences, 1987- 2006, Dayton, Ohio
Visiting Professor, 2008-2012.
Professor of Environmental Sciences, 1996 – 2008.
Chair, Department of Earth & Environmental Sciences, 2006 - 2008.
Director, Institute for Environmental Quality, 1994 - 2006.
Interim Chair, Geological Sciences Department. 2005 – 2006.
Coordinator, Environmental Health Sciences B.S. Degree Program, 1985-2006.
Associate Director, Environmental Sciences Ph.D. Program. July 2003-2005.
Brage Golding Distinguished Professor of Research, 2000 – 2003.
Director, Environmental Sciences Ph.D. Program. 2002- 2003.
Associate Professor, 1990 - 1996.
Associate Director of the Toxicant Contamination Research Program, 1987 - 1990.
Assistant Professor, 1985 -1990.

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

U.S. Environmental Protection Agency, Dallas, Texas
Life Scientist, GS-11. 1980 - 1984.

University of Texas at Dallas, Richardson, Texas
Teaching and Research Assistant, 1979 - 1984.

U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi
1978 -1979
Microbiologist

Honors and Awards:

Board of Advisors. University of North Texas, Inaugural Board of Advisors for the Advanced Environmental Research Institute. 2016-2019.

Expert Panel. Research Institute for Fragrance Materials. 2016-2019.

Doctor *Honoris Causa*, Natural Sciences, University of Roskilde, Denmark. 2013

Distinguished Faculty Fellow. Graham Sustainability Institute, University of Michigan. 2014-2016.

Editor-in-Chief. Environmental Toxicology & Chemistry. 2012-present

Science Advisory Board, U.S. Environmental Protection Agency, Committee on Review of the Ecological Assessment Action Plan. 2012.

Science Advisory Panel, U.S. EPA Office of Pesticides Programs. Review of Methods for Characterizing Effects of Pesticides and Other Chemical Stressors to Aquatic Organisms. 2012.

Co-Editor-in-Chief. Environmental Toxicology & Chemistry. 2011.

Science Advisory Board, U.S. Environmental Protection Agency, Committee on Oil Spill Research Strategy Panel. 2011- 2012.

Science Advisory Board, U.S. Environmental Protection Agency, Committee on Ballast Water Technology Panel. 2010-2011

Science Advisory Board, U.S. Environmental Protection Agency, Committee on Risk and Technology Review Assessments for Phase II Source Categories (RTR II) Panel. 2009-2010

Science Advisory Board, U.S. Environmental Protection Agency, Ecological Processes and Effects Committee. 2005-2011

Editor, Environmental Toxicology & Chemistry. 2009-2011.

University of Michigan Road Scholar. 2009.

Science Advisory Board, U.S. Environmental Protection Agency, Scientific and Technological Achievement Awards (STAA) Panel. 2006-2008.

National Research Council Committee on Sediment Dredging at Superfund Mega-sites. 2006-2007

Immediate Past-President, Society of Environmental Toxicology and Chemistry, 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 Service (*Chronological order from 2001; Academic service not included*):

Editorial Board, Aquatic Ecosystem Health & Management, 2001-2004.
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.
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, 6th International Symposium on Sediment Quality Assessment. 2004. Antwerp, Belgium.
Contaminated Sediments Committee, American Society of Civil Engineering. August 2003-2005.
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.
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 SETAC. 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 2004-2006.
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. Ecosystem Processes and Ecology Committee (EPEC) 2005-2011.
Science Advisory Board. Scientific and Technological Achievement Awards Committee (STAA). 2005-2008
Vice-President, Society of Environmental Toxicology and Chemistry, 2006
World Council, Society of Environmental Toxicology and Chemistry, 2003-2008.
President, Society of Environmental Toxicology and Chemistry, 2007
Immediate Past-President. SETAC. 2008.
National Research Council, Committee on Evaluation of the Effectiveness of Dredging at Contaminated

Sediment Sites. 2006-2007.

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

Yellow Springs Instruments Foundation. Review Panel. 2007.

Chair. Metals Assessment Session. SETAC Europe Annual Meeting. Porto Portugal. May 2007.

Co-Chair. Metals Risk Assessment Session. SETAC North America Annual Meeting. Milwaukee, WI. Nov. 2007.

Co-Chair. Sediment Dredging Effectiveness Session. SETAC North America Annual Meeting. Milwaukee, WI. 2007.

Chair, Program Review Panel. Montclair University Dept. of Earth and Environmental Studies, New Jersey. 2008.

Review Panel. NIEHS Basic Superfund Research Program. 2008, 2009

Science Advisory Board, U.S. Environmental Protection Agency, Risk and Technology Review Assessments for Phase II Source Categories (RTR II) Panel. 2009-2010

Expert Panel: ASTM E1924 as a Whole Effluent Toxicity Method. ReGenesis. Nov. 2010.

Editor, Environmental Toxicology & Chemistry. 2009-2011.

Co-Editor-in-Chief. Environmental Toxicology & Chemistry. 2011.

Great Lakes Threat Mapping Project Workgroup. The Joyce Foundation. 2009-2011.

State of Washington Department of Ecology. Freshwater Sediment Guidelines Proposed Regulation Review. 2010.

Risk Science Center Internal Advisory Panel. University of Michigan School of Public Health. 2010-2012.

Upper Midwest and Great Lakes Landscape Conservation (UMGL LCC) Technical Committee. 2010-2011.

Science Advisory Board, U.S. Environmental Protection Agency, Ballast Water Technology Panel. 2010-2011.

External Board of Reviewers. State of Washington Department of Ecology. Technology Assessment Protocol – Ecology (TAPE) for Stormwater. 2010-2012.

External Review Panel. Canadian Foundation of Innovation. University of Windsor. 2011.

Science Advisory Board, U.S. Environmental Protection Agency, Oil Spill Research Strategy Panel. 2011-2012.

Editor-in-Chief. Environmental Toxicology & Chemistry. 2012-present

Advisory Board, University of Michigan Biological Station. 2011-present.

Use of Oil Spill Dispersants Research Strategy. NOAA. Mobile, AL 2011.

Trans-boundary Research University Network. UM representative. 2011-2012.

Science Advisory Board, U.S. Environmental Protection Agency, Review of the Ecological Assessment Action Plan. 2012.

Science Advisory Panel, U.S. EPA Office of Pesticides Programs. Review of Methods for Characterizing Effects of Pesticides and Other Chemical Stressors to Aquatic Organisms. 2012.

Scientific Committee. XII Congresso Brasileiro de Ecotoxicologia. Recife, Brazil. Sept. 2012.

Chair, Program Review Panel. School of Biological Sciences, University of Nebraska – Lincoln. Mar 2012.

Chair, External Scientific Advisory Committee, Center for Environmental and Marine Sciences, (CESAM), University of Aveiro, Portugal.

U.S. EPA Technical Qualifications Board. Promotion review to GS-15. National Exposure Research Laboratory. 2013.

Chair, Global Partners Committee, Society of Environmental Toxicology & Chemistry. 2014-2015.

Program Review Panel. University of North Texas Department of Biological Sciences. 2015.

Advisory Panel. Ecological Toxicity Advisory Panel. Non-Ferrous Metals Research Associations. 2000-present.

Expert Panel Research Institute for Fragrance Materials. 2016-2019.

Board of Advisors. University of North Texas, Inaugural Board of Advisors for the Advanced Environmental Research Institute. 2016-2019.

Research Grant and Contract Awards (*chronological since 2006, previous grants 1985-2005 not listed*):

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

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

Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2006.

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

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

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

Marshall Miller & Associates. Ecological Risk Assessment Report. 2006,

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

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

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.

Copper Development Association. Copper and Sediments: Defining the State-of-the-Science and Key Data Gaps. 2007.

International Copper Association, Dissolved Organic Carbon Dynamics in Brandenburg Pond, Ohio. 2007.

International Zinc Association. Zinc and Sediments: Defining the State-of-the-Science and Key Data Gaps. 2007.

City of Dayton. Stormwater Effects on the Mad River, Ohio. 2007.

Nickel Producers Environmental Research Association. Determining Realistic Sediment Toxicity Threshold Effect Levels for Freshwater Species. 2007-2008

Ecotoxicity Technical Advisory Panel Reports. Non-Ferrous Metal Industry. 2007.

Wright State University Research Challenge. Seed grant for Center of Excellence: Nanoscale Science & Engineering of Multi-functional Materials. (Co-PI) 2007-2008.

International Copper Association and Copper Development Association. An Assessment of Copper Effects on Benthic Invertebrates in Freshwater Ecosystems, Project Amendment. 2007-2008.

Environment Agency – United Kingdom. A Quantitative Approach for Scientifically-Based Decision Making: Linking Physical and Chemical Factors with Ecosystem Responses. 2007-2008.

2007 Funding: \$1,198,111

Ecotoxicity Technical Advisory Panel report and Norway meeting. Non-Ferrous Metal Industry. 2008.

International Copper Association (via Arcadis Belgium). Assessment of Acid Volatile Sulfides in Large European River Sediments. 2008.

Midwest Generation. Evaluation of Use Attainability Assessment of the Upper Des Plaines Waterway. 2008.

Nickel Producers Environmental Research Association. Review of the flux, transport and bioavailability of Nickel in freshwater sediments. (Coauthor with Packman, Northwestern U. 2008

School of Natural Resources & Environment. University of Michigan. Sediment resuspension using stable isotopes. Seed Grant.

2008 Funding: \$45,661

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry. 2009.

Nickel Producers Environmental Research Association. Determining Realistic Sediment Toxicity Threshold Effect Levels for Freshwater Species. 2009-2010.

USEPA STAR. Influence of water quality on the bioavailability and food chain transport of carbon

nanoparticles. Steve Klaine (Clemson) PI. Burton CoPI. 2009-2011.
Strategic Environmental Restoration and Demonstration Program (SERDP). Predicting the fate and effects of resuspended metal contaminated sediments. 2010-2012.
Strategic Environmental Restoration and Demonstration Program (SERDP). Coupling between pore water fluxes, structural heterogeneity, and biogeochemical processes controls contaminant mobility, bioavailability, and toxicity in sediments. A. Packman Northwestern U PI. AB CoPI portion. 2010-2012.

2009 Funding: \$1,688,988

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry. 2010
ESTCP. Demonstration and commercialization of the Sediment Ecosystem Assessment Protocol (SEAP). CoPI. 2011-2013.

Stratus Consultants. Performance Measures of Remediation Effectiveness. 2010-2011.

ReGenesis Corp. Expert panel review of QwikLite as USEPA WET method

2010 New Funding: ~\$283,180

Total Funding through 1985-2010 ~\$10,000,000

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry. 2011.
National Environmental Law Center. Evaluation of river impacts from a coal burning power plant. 2011
Silicones Environmental Health and Safety Council. Review of D5 as a toxic chemical in Canada. 2011.
DeWitt Ross & Stevens S.C.. Review of the biological impacts of site runoff. 2011-2012.

2011 Funding: \$62,877

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry Research Organizations. 2012.

RioTinto, Inc. 2012. Predicting the potential effects of metal contaminated sediments on diverse stream communities.

Non-Ferrous Metal Industry Research Organizations. 2012-2014. Experiments measuring bioavailability in oxic and spiked sediments (EMBOSS).

Erb Family Foundation. University of Michigan Water Center. 2012-2015.

Provost, University of Michigan. University of Michigan Water Center. 2012-2015.

2012 New Funding: \$9,515,000

Water Environment Research Foundations. Secondary Data and Modeling to Support the Application of Site Screening Tools Developed in Phase I to Evaluate Ecological Effects from Trace Organics in the Aquatic Environment. AB Co-PI to LimnoTech 2013-2015. WERF Project CEC6R12

University of Michigan. MCubed. 2013-2014. Tracking water and biodiversity resources in the Great Lakes. Co-PI.

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry Research Organizations. 2013.

SERDP. Assessment and Management of Stormwater Impacts on Sediment Recontamination. AB Co-PI to University of Texas. 2014-2016.

NiPERA. Validating Ecological Indicators of Metal Availability: A Study of the Thompson and Birchtree Mines, Thompson, Manitoba. 2013-2015.

University of Michigan Third Century Initiative: Global Challenges. Develop the Ethiopia-Michigan Platform for Advancing Collaborative Engagement. 2013-2015.

2013 New Funding: ~\$468,000

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry Research Organizations. 2014.

SERDP. Remedy and Recontamination Assessment Array. AB Co-PI to Bart Chadwick, SPAWAR. 2014-

2016.

University of Michigan Water Center. 2013-2015. Microplastics in the Great Lakes: Towards establishing a long-term multidisciplinary research platform to assess the impact of microplastics on Laurentian Great Lakes ecosystem health. AB Co-PI.

University of Michigan Water Center. 2013-2015. Improving water quality and well-being in Great Lakes post-industrial cities: A multidisciplinary partnership to assess Detroit's green infrastructure. AB Co-PI.

2014 New Funding: ~\$88,000

Ecotoxicity Technical Advisory Panel. Research assistance. Non-Ferrous Metal Industry Research Organizations. 2014.

Dow Chemical Company. Assessment of Potential Toxicity in Lake Catherine, Hot Springs, Arkansas. 2015-2016.

NiPERA. Metal partitioning to oxic natural sediments and removal from water. 2015.

2015 New Funding: ~\$253,390

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

Ecological Risk Assessment

Great Lakes Stressors

Stressor Dynamics in Aquatic Ecosystems

Urban Stormwater Science and Management

Aquatic Ecosystem Stressors

Publications:

1. Burton, G.A., Jr. 1978. Isolation, Frequency of Occurrence, and Survival of *Yersinia enterocolitica* in Aqueous Environments. Thesis. 88 pp. Auburn University, Auburn, Alabama.
2. Gunnison, D., J.M. Brannon, I. Smith, Jr., and G.A. Burton, Jr. 1980. Changes in respiration and anaerobic nutrient regeneration during the transition phase of reservoir development. Proceedings of the Workshop on Hypereutrophic Ecosystems, Vaxjo, Sweden, 10-14 September, 1979.
3. Gunnison, D., J.M. Brannon, I. Smith, Jr., G.A. Burton, Jr. and K.M. Preston. 1980. A reaction chamber for study of interactions between sediments and water under conditions of static or continuous flow. *Water Res.* 14: 1520-1532.
4. Burton, G.A., Jr. and J.M. Lazorchak. 1982. Substrate associated microfauna. (Review article). *J. Water Pollut. Contr. Fed.* 54: 922-931.
5. Burton, G.A., Jr. and J.M. Lazorchak. 1983. Substrate associated microfauna. (Review article). *J. Water Pollut. Contr. Fed.* 55: 863-869.

6. Lazorchak, J.M. and G.A. Burton, Jr. 1984. Substrate associated microfauna. (Review article). *J. Water Pollut. Contr. Fed.* 56: 787-791.
7. Burton, G.A., Jr. 1984. Microbial Activity Tests: Factors Affecting Their Potential Use in Sediments. Ph.D. dissertation, 304 pp. University of Texas at Dallas, Richardson.
8. Lazorchak, J.M. and G.A. Burton, Jr. 1985. Substrate associated microfauna. (Review article). *J. Water Pollut. Contr. Fed.* 57: 724-728.
9. Burton, G.A., Jr. 1985. Microbiological water quality, In: *Microbial Processes in Reservoirs*. D. Gunnison (ed.), Junk Publishers, pp. 79-97.
10. Burton, G.A., Jr. and G.R. Lanza. 1985. Microbial enzyme activity tests: factors affecting their use to detect toxicant impacts on sediment microbiota, pp. 214-228, In: R.D. Cardwell, R. Purdy, and R.C. Bahner (eds.), *Aquatic Toxicology and Hazard Assessment*, STP 854. American Society for Testing and Materials, Philadelphia, PA.
11. Lazorchak, J. and G.A. Burton, Jr. 1986. Substrate associated microfauna. *J. Water Pollut. Contr. Fed.* 58: 699-703.
12. Burton, G.A., Jr. and G.R. Lanza. 1986. Variables affecting two electron transport system assays. *Appl. Environ. Microbiol.* 51: 931-937.
13. Burton, G.A., Jr., T. Giddings, P. DeBrine, and R. Fall. 1987. A high incidence of selenite-resistant bacteria from a site polluted with selenium. *Appl. Environ. Microbiol.* 53: 185-188.
14. Burton, G.A., Jr., J. Lazorchak, W. Waller and G. Lanza. 1987. Arsenic toxicity changes in the presence of sediments. *Bull. Environ. Contam. Toxicol.* 38: 491-499.
15. Burton, G.A., Jr., D. Gunnison and G.R. Lanza. 1987. Survival of enteric pathogens in freshwater sediments. *Appl. Environ. Microbiol.* 53: 633-638.
16. Burton, G.A., Jr. and G.R. Lanza. 1987. *Aeromonas hydrophila* densities in thermally-altered reservoir water and sediments. *Water, Air, Soil Pollut.* 34: 199-206.
17. Burton, G.A., Jr., D. Nimmo, F. Payne and D. Murphey. 1987. Microbial activity and *Ceriodaphnia* stream impact survey. *Environ. Toxicol. Chem.* 6: 505-513.
18. Burton, G.A., Jr., A. Drotar, J. Lazorchak and L. Bahls. 1987. Relationship of microbial activity and *Ceriodaphnia* responses to mining impacts on the Clark Fork River, MT. *Arch. Environ. Contam. Toxicol.* 16: 523-530.
19. Drotar, A., G.A. Burton, Jr., J.E. Tavernier and R. Fall. 1987. Widespread occurrence of bacterial thiol methyl-transferases and the biogenic emission of methylated sulfur gases. *Appl. Environ. Microbiol.* 53: 1626-1631.
20. Burton, G.A., Jr. and G.R. Lanza. 1987. Aquatic microbial activity and macrofaunal profiles of an Oklahoma stream. *Water Res.* 21: 1173-1182.
21. Burton, G.A., Jr. 1988. Occurrence of bacterial resistance to arsenite, copper, and selenite in diverse habitats. *Bull. Environ. Contam. Toxicol.* 39: 990-997.
23. Burton, G.A., Jr. and B.L. Stemmer. 1988. Evaluation of surrogate tests in toxicant impact assessments. *Toxicity Assess.* 3: 255-269.
24. Burton, G.A., Jr. 1988. Sediment impact assessments using microbial activity tests, In: J. Lichtenberg, J. Winter, C. Weber, and L. Fradkin (eds.), *Chemical and Biological Characterization of Municipal Sludges, Sediments, Dredge Spoils and Drilling Muds*, STP 976, American Society for Testing and Materials, Philadelphia, PA, pp. 300-310.
25. Burton, G.A., Jr. 1989. Health effect assessments at hazardous waste sites: increasing your expertise. *Ohio J. Environ. Health.* 39: 22-23.
26. Lanza, G.R., G.A. Burton, Jr. and J.M. Dougherty. 1989. Microbial enzyme activities: potential use for monitoring decomposition processes, In: J. Cairns, Jr. and J.R. Pratt (eds.), *Functional Testing of Aquatic Biota for Estimating Hazards of Chemicals*, ASTM STP 988. American Society for Testing and Materials, Philadelphia, PA. pp. 41-54.
27. Burton, G.A., Jr. 1989. Evaluation of seven sediment toxicity tests and their relationships to stream parameters. *Toxicity Assess.* 4: 149-159.
28. Burton, G.A., Jr., B.L. Stemmer, K.L. Winks, P.E. Ross, and L.C. Burnett. 1989. A multitrophic level evaluation of sediment toxicity in Waukegan and Indiana harbors. *Environ. Toxicol. Chem.* 8: 1057-1066.

29. Burton, G.A., Jr., B.L. Stemmer, P.E. Ross, and L.C. Burnett. 1989. Discrimination of sediment toxicity in freshwater harbors using a multitrophic level test battery. In, W.S. Davis and T.P. Simon (eds.), Proceedings of the 1989 Midwest Pollution Control Biologists Meeting. U.S. Environmental Protection Agency, Region V, Instream Biocriteria and Ecological Assessment Committee. Chicago, IL. EPA 905/9-89-007. pp. 71-84.
30. Burton, G.A., Jr., 1990. Ecotoxicology: The Study of the Effects of Chemicals on Natural Systems (a four part feature series--Special Editor). Environ. Sci. Technol. 24: 9.
31. Stemmer, B.L., G.A. Burton, Jr., and S. Leibfritz-Frederick. 1990. Effect of sediment test variables on selenium toxicity to *Daphnia magna*. Environ. Toxicol. Chem. 9: 381-389.
32. Stemmer, B.L., G.A. Burton, Jr., and G. Sasson-Brickson. 1990. Effect of sediment spatial variance and collection method on cladoceran toxicity and indigenous microbial activity determinations. Environ. Toxicol. Chem. 9: 1035-1044.
33. Burton, G.A., Jr. and P.F. Landrum. 1990. New Standard Guide for Sediment Collection, Storage, Characterization, and Manipulation of Sediments for Toxicological Testing. ASTM Standard E1391. American Soc. Testing and Materials. Philadelphia, PA.
34. Sasson-Brickson, G. and G.A. Burton, Jr. 1991. *In situ* and laboratory toxicity testing with *Ceriodaphnia dubia*. Environ. Toxicol. Chem. 10: 201-207.
35. Hieber, P., L. Bedel, and G.A. Burton, Jr. 1991. A noise survey of groundskeepers and highway workers. Ohio J. Environ. Health. 41: 26-29.
36. Kenoyer, G., J. Seaberg, J. Reese, G. Hess, and G.A. Burton, Jr. 1991. Simulation of aquifer remediation with laboratory and field tests of sorption of chlorinated VOCs. Proceedings, National Waterwell Association Outdoor Action Conference, May, 1990, Las Vegas. NWWA, Columbus, OH.
37. Burton, G.A., Jr. 1991. Assessing freshwater sediment toxicity. Environ. Toxicol. Chem. 10: 1585-1627.
38. Burton, G.A., Jr. 1991. Impacts of sediment contaminants on sediment macrofauna. L. 'Ecotoxicologie Des Sediments, Rapport et communications du congres international de La Rochelle. Societe D'Ecotoxicologie Fondamentale et Appliquee. Paris, France.
39. Burton, G.A., Jr. 1992. Sediment Toxicity Assessment. Editor. Lewis Publishers. Boca Raton, FL. 457 p
40. Burton, G.A., Jr. 1992. Sediment collection and processing: factors affecting realism. In, Sediment Toxicity Assessment. Lewis Publishers. Boca Raton, FL. pp. 37-66.
41. Burton, G.A., Jr. 1992. Plankton, macrophyte, fish and amphibian toxicity testing of contaminated freshwater sediments. In, Sediment Toxicity Assessment. Lewis Publishers, Boca Raton, FL. pp.167-182.
42. Burton, G.A., Jr., M.K. Nelson, and C. Ingersoll. 1992. Freshwater benthic toxicity assays. In, Sediment Toxicity Assessments. Lewis Publishers, Boca Raton, FL. pp. 213-240.
43. Chapman, P., E. Power, and G.A. Burton, Jr. 1992. Integrative assessments in aquatic ecosystems. In, Sediment Toxicity Assessment. Lewis Publishers. Boca Raton, FL. pp. 313-340.
44. Burton, G.A., Jr. 1992. Annex X4. *Daphnia* and *Ceriodaphnia* sp. In ASTM Standard Guide E1383. New Standard Guide for Conducting Sediment Toxicity Tests with Freshwater Invertebrates. Amer. Soc. Testing and Materials. Philadelphia, PA.
45. Ross, P.E., G.A. Burton, E.A. Crecelius, J.C. Filkins, J.P. Giesy, Jr., C.G. Ingersoll, M.J. Mac, T.J. Murphy, J.E. Rathbun, V.E. Smith, H.E. Tatem, & R.W. Taylor. 1992. Assessment of sediment contamination at Great Lakes Areas of Concern: the ARCS Program Toxicity-Chemistry Work Group strategy. J. Aquatic Ecosystem Health 1:193-200.
46. Burton, G.A., Jr. 1992. Assessing contaminated aquatic sediments (a two part feature series - Special Editor). Environ. Sci. Technol. Vol. 26:1862-1863.
47. Burton, G.A., Jr. 1993. Assessing the quality of life for aquatic biota. In, Proceedings 1992 International Symposium on Environmental Dredging, A Solution to Contaminated Sediments?. Erie County Environmental Education Institute, Inc.. Buffalo, NY.
48. Burton, G.A., Jr. and K.J. Scott. 1992. Sediment toxicity evaluations: Their niche in ecological assessments. Environ. Sci. Technol. Vol. 26:2068-2075.
49. Burton, G.A., Jr., T. La Point, and C. Zarba. 1993. Contamination assessment of sediments in freshwater ecosystems, In, J. Saxena, ed., Hazard Assessment of Chemicals - Current Developments, Vol. 8: 171-205. Taylor and Francis Publ. Corp., Washington, DC.
50. Burton, G.A., Jr. 1993. Sediment quality assessments, Proceedings of the Conf. on Assessment and

Treatment of Contaminated Sediments in the North Branch Chicago River. Northeast Illinois Planning Commission, Chicago, IL. pp. 23-30.

51. Nelson, M.K., P.F. Landrum, G.A. Burton, Jr., S.J. Klaine, E.A. Crecelius, T.D. Byl, D.C. Gossiaux, V.N. Tsymbal, L. Cleveland, C.G. Ingersoll, G. Sasson-Brickson. 1993. Toxicity of contaminated sediments in dilution series with control sediments. *Chemosphere* 27:1789-1812.

52. Burton, G.A., Jr. 1994. Assessing stormwater impacts. In, G. V. Cotroneo and R.R. Rumer (eds.), *Hydraulic Engineering '94, Proceedings of the 1994 Conference*. Amer. Soc. Civil Engineers Publ. pp. 1198-1202.

53. Burton, G.A., Jr. and C.G. Ingersoll. 1994. Evaluation of sediment toxicity, In *Assessment Guidance Document. Assessment and Remediation of Contaminated Sediments (ARCS) Program*, U.S. Environmental Protection Agency, Great Lakes National Program Office, Chicago, IL. pp. 86-130.

54. Hoffman, D.J, B.A. Rattner, G.A. Burton, Jr., and J. Cairns, Jr. (eds.) 1995. *Handbook of Ecotoxicology*. Lewis Publishers, Boca Raton, FL.

55. Burton, G.A., Jr. and C. MacPherson. 1995. Test methods for measuring sediment toxicity, In Hoffman, D., et al. (eds.), *Handbook of Ecotoxicology*. Lewis Publishers, Boca Raton, FL. pp.70-103.

56. Burton, G.A., Jr. 1995. Quality assurance issues in assessing receiving waters. In E.E. Herricks, ed., in *Stormwater Runoff and Receiving Systems: Impact, Monitoring, and Assessment*. Lewis Publishers, Boca Raton, FL. pp. 275-284.

57. Sarda, N. and G.A. Burton, Jr., 1995. Ammonia variation in sediments: Spatial, temporal and method-related effects. *Environ. Toxicol. Chem.* 14:1499-1506.

58. Ingersoll, C.G., G.T. Ankley, D.A. Benoit, E.L. Brunson, G.A. Burton, F.J. Dwyer, R.A. Hoke, P.F. Landrum, T.J. Norberg-King, and P.V. Winger. 1995. Toxicity and bioaccumulation of sediment-associated contaminants using freshwater invertebrates: a review of methods and applications. *Environ. Toxicol. Chem.* 14:1885-1894.

59. Burton, G.A., Jr. 1995. Critical issues in sediment bioassays and toxicity testing. *J. Aquatic Ecosystem Health* 4: 151-156.

60. Ireland, D.S., G.A. Burton, Jr., and G.G. Hess. 1996. *In Situ* toxicity evaluations of turbidity and photoinduction of polycyclic aromatic hydrocarbons. *Environ. Toxicol. Chem.* 15:574-581.

61. Burton, G.A., Jr., T.J. Norberg-King, C.G. Ingersoll, D.A. Benoit, G.T. Ankley, P.V. Winger, J. Kubitz, J.M. Lazorchak, M.E. Smith, E. Greer, F.J. Dwyer, D.J. Call, K.E. Day, P. Kennedy, and M. Stinson. 1996. Interlaboratory study of precision: *Hyalella azteca* and *Chironomus tentans* freshwater sediment toxicity tests. *Environ. Toxicol. Chem.* 15:1335-1343

62. Burton, G.A., Jr. W.R. Arnold, L.W. Ausley, J.A. Black, G.M. DeGraeve, F. Fulk, J. Heltshe, W.H. Peltier, J. Pletl, and J.H. Rodgers, Jr. 1996. Discussion synopsis: effluent toxicity testing variability, in D. Grothe, K. Dickson, and D. Reed-Judkins (eds.) *Whole Effluent Toxicity Testing: An Evaluation of Methods and Prediction of Receiving System Impacts*. SETAC Press, Pensacola, FL, pp. 131-156.

63. Burton, G.A., Jr., C. Ingersoll, L. Burnett, M. Henry, M. Hinman, S. Klaine, P. Landrum, P. Ross, and M. Tuchman. 1996. A comparison of sediment toxicity test methods at three Great Lakes Areas of Concern. *J. Great Lakes Res.* 22:495-511.

64. Yu, K. O., D.E. Tillitt, J.Z. Byczkowski, G.A. Burton, Jr., S.R. Channel, J.M. Drerup, C.D. Flemming, and J.W. Fisher. 1996. *In vivo/in vitro* comparison of the pharmacokinetics and pharmacodynamics of 3,3',4,4'-tetrachlorobiphenyl (PCB77). *Toxicol. Appl. Pharm.* 141:434-438.

65. Canfield, T.J., F.J. Dwyer, J.F. Fairchild, P.S. Haverland, C.G. Ingersoll, N.E. Kemble, D.R. Mount, T.W. LaPoint, G.A. Burton, M.C. Swift. 1996. Assessing contamination in Great Lakes sediments using benthic invertebrate communities and the sediment quality triad approach. *J. Great Lakes Res.* 22:565-583.

66. Burton, G.A., Jr., C. Hickey, T. DeWitt, D. Morrison, D. Roper, and M. Nipper. 1996. *In situ* toxicity testing: Teasing out the environmental stressors. *SETAC NEWS* 16(5):20-22.

67. Burton, G.A. 1996. Evaluating toxicity: test response issues. *Proceedings, Workshop on Toxicity Testing Applied to Soil Ecotoxicology.*, National Research Council, Biotechnology Research Institute, Montreal, Canada, pp. 21-22.

68. Chappie, D. J. and G.A. Burton, Jr., 1997. Optimization of *in situ* bioassays with *Hyalella azteca* and *Chironomus tentans*. *Environ. Toxicol. Chem.* 16:559-564.

69. Solomon, K.R., G.T. Ankley, R. Baudo, G.A. Burton, Jr., C.g. Ingersoll, W. Lick, S.N Luoma, D.D. MacDonald, T.B. Reynoldson, R.C. Swartz, and W. Warren-Hicks. 1997. Workgroup summary report on methodological uncertainty in conducting sediment ecological risk assessments with contaminated sediments. In, G. R. Biddinger, T. Dillon, and C.G. Ingersoll (eds.). Ecological Risk Assessments of Contaminated Sediments. Proceedings of the 22nd Pellston Workshop, SETAC Special Publication Series, SETAC Press, Pensacola, FL, pp. 271-296.
70. Ingersoll, C. G., G.T. Ankley, R. Baudo, G. A. Burton, W. Lick, S.N. Luoma, D.D. MacDonald, T.B. Reynoldson, K.R. Solomon, R.C. Swartz, and W. Warren-Hicks, 1997. Workgroup summary report on an uncertainty evaluation of measurement endpoints used in sediment ecological risk assessments, In, G. R. Biddinger, T. Dillon, and C.G. Ingersoll (eds.). Ecological Risk Assessments of Contaminated Sediments. Proceedings of the 22nd Pellston Workshop, SETAC Special Publication Series, SETAC Press, Pensacola, FL. pp. 297-352.
71. Hatch, A.C. and G.A. Burton, Jr. 1998. Effects of photoinduced toxicity of fluoranthene on amphibian embryos and larvae. Environ. Toxicol. Chem. 17:1777-1785.
72. Burton, G.A., Jr. 1998. Realistic assessments of water quality: matching exposure with effects. Proceedings of International Conference on Ecology of Cities, Rhodes, Greece. 291-298 pp.
73. Krane, D.E., D.C. Sternburg, and G.A. Burton. 1999. RAPD DNA profile-based measures of genetic diversity in crayfish are correlated with environmental impacts. Environ. Toxicol. Chem. 18:504-508.
74. Greenberg, M.S., G.A. Burton, Jr. and J.W. Fisher. 1999. Physiologically based pharmacokinetic modeling of inhaled trichloroethylene and its oxidative metabolites in B6C3F1 Mice. Toxicol. Applied Pharmacol. 154:264-268.
75. Ross, P., G. A. Burton, Jr., M. Greene, K. Ho, P. Meier, L. Sweet, A Auwarter, A. Bispo, K. Doe, K. Erstfeld, S. Goudey, M. Goyvaerts, D. Henderson, M. Jourdain, M. Lenon, P. Pandard, A Qureshi, C. Rowland, C. Schipper, W. Schreurs, S. Trottier, G. Van Aggelen. 1999. Interlaboratory precision study of a whole sediment toxicity test with the luminescent bacterium *Vibrio fischeri*. Environ. Toxicol. Water Quality 14:339-345.
76. Burton, G.A., Jr. 1999. Realistic assessments of ecotoxicity using traditional and novel approaches. J. Aquatic Ecosystem Health and Management. 2:1-8.
77. Hatch, A.C. and G.A. Burton, Jr. 1999. Sediment toxicity and stormwater runoff in a contaminated receiving system: Consideration of different bioassays in the laboratory and field. Chemosphere 39:1001-1017.
78. Hatch, A.C. and G.A. Burton, Jr. 1999. Photoinduced toxicity of PAHs to *Hyalella azteca* and *Chironomus tentans*: Effects of mixtures and behavior. Environmental Pollution 106:157-167.
79. Tucker, K.A. and G.A. Burton, Jr. 1999. Assessment of nonpoint source runoff in a stream using *in situ* and laboratory approaches. Environ. Toxicol. Chem. 18:2797-2803.
80. Hatch, A.C. and G.A. Burton, Jr. 1999. Phototoxicity of fluoranthene to two freshwater crustacans, *Hyalella azteca* and *Daphnia magna*: Measures of feeding inhibition as a toxicological endpoint. Hydrobiologia 400:243-248.
81. Greenberg, M.S., G.A. Burton, Jr., P.B. Duncan. 2000. Considering Groundwater-Surface Water Interactions in Sediment Toxicity Assessment. SETAC Globe. March, April, pp. 42-44.
82. Schlueter, M.A., S.I. Guttman, Y. Duan, J.T. Oris, X. Huang, and G.A. Burton, Jr. 2000. Effects of acute exposure to fluoranthene contaminated sediment on the survival and genetic variability of fathead minnows (*Pimephales promelas*). Environ. Toxicol. Chem. 19:1011-1018.
83. Duan, Y., S.I. Guttman, J.T. Oris, X-D Huang, and G. A. Burton, 2000. Genotype and toxicity relationships among *Hyalella azteca*: II. Acute exposure to fluoroanthene-contaminated sediment. Environ. Toxicol. Chem. 19:1422-1426.
84. Chappie, D.J. and G.A. Burton, Jr. 2000. Applications of Aquatic and Sediment Toxicity Testing *In Situ*. J. Soil and Sediment Contamination 9:219-246.
85. Rowland, C.D., G.A. Burton, Jr., and S.M. Morrison. 2000. Implication of polymer toxicity in a municipal wastewater effluent. Environ. Toxicol. Chem. 19:2136-2139.
86. Burton, G.A., Jr. and M.S. Greenberg. 2000. Assessment approaches and issues in ecological characterizations. Proceedings of the Ground-Water/Surface-Water Interactions Workshop. Solid Waste and Emergency Response. U.S. EPA. Washington, D.C. EPA/542/R-00/007., pp. 31-34.

87. Burton, G.A., Jr., R. Pitt, and S. Clark. 2000. The role of traditional and novel toxicity test methods in assessing stormwater and sediment contamination. *CRC Critical Reviews in Environmental Science & Technology* 30: 413-447.
88. Burton, GA, Jr. 2001. Moving beyond sediment quality values and simple laboratory toxicity tests. *SETAC Globe* 2 (2):26-27.
89. Chapman PM, Birge WJ, Adams WJ, Barrick R, Bott TL, Burton GA, Douglas WS, Luther GW, O'Connor T, Page DS, Sibley P, Standley LJ, Wenning R. 2001. Sediment quality values (SQVs) – Challenges and recommendations. *SETAC Globe* 2 (2):24-26.
90. Burton, G.A., Jr., and R. Pitt. 2001. *Stormwater Effects Handbook: A Tool Box for Watershed Managers, Scientists and Engineers*. CRC/Lewis Publishers, Boca Raton, FL, 924 pp.
http://rpitt.eng.ua.edu/Publications/BooksandReports/Stormwater%20Effects%20Handbook%20by%20%20Burton%20and%20Pitt%20book/MainEDFS_Book.html
91. Hoffman, D.J., B.A. Rattner, G.A. Burton and D.R. Lavoie. 2001. Ecotoxicology, in, M.J. Derelanko and M. A. Hollinger (eds.), *CRC Handbook of Toxicology*, 2nd edition. CRC Press. Boca Raton, FL. , pp. 867-912.
92. Ribeiro, R., L.A. Kelly, F. Goncalves, G.A. Burton, Jr., A.M.V.M. Soares. 1999. New artificial sediment for *Chironomus riparius* toxicity testing. *Bull. Environ. Contam. Toxicol.* 63:691-697.
93. Baird, D. and G.A. Burton, Jr. (eds.) 2001. *Ecological Variability: Separating Natural from Anthropogenic Causes of Ecosystem Impairment*. Pellston Workshop Series. SETAC Press. Pensacola, FL.
94. Dorward-King, EJ, GW Suter II, LA Kapustka, DR Mount, DK Reed-Judkins, S.Cormier, SD Dyer MG Luxon, R. Parrish and GA Burton. 2001. Distinguishing among factors that influence ecosystems, In, Baird, D. and G.A. Burton, Jr. (eds.) *Ecosystem Variability: Separating Natural from Anthropogenic Causes of Ecosystem Impairment*. Pellston Workshop Series. SETAC Press, Pensacola, FL.
95. Burton, G. Allen, Jr., Scott D. Dyer, Susan M. Cormier, Glenn W. Suter, and Elaine J. Dorward-King. 2001. Identifying Watershed Stressors Using Database Evaluations Linked With Field and Laboratory Studies: A Case Example, In, Baird, D. and G.A. Burton, Jr. (eds.) *Ecosystem Variability: Separating Natural from Anthropogenic Causes of Ecosystem Impairment*. Pellston Workshop Series. SETAC Press, Pensacola, FL.
96. Burton, G.A., Jr., R. Baudo, M. Beltrami, and C. Rowland. 2001. Assessing sediment toxicity using six toxicity assays. *J. Limnology* 60:263-267.
97. Greenberg, M., G.A. Burton, Jr., C.D. Rowland. 2002. Optimizing Interpretation of *In Situ* Effects of Riverine Pollutants: Impact of Upwelling and Downwelling. *Environ. Toxicol. Chem.* 21:289–297.
98. Burton, G.A., Jr. 2002. Flux of Sediment-Associated Contamination. Fact Sheet on Environmental Risk Assessment. International Council on Mining and Metals. London, UK.
99. Landrum, P.F., M.L. Gideon, G.A. Burton, M.S. Greenberg, C.D. Rowland. 2002. Biological responses of *Lumbriculus variegatus* exposed to fluoranthene-spiked sediment. *Archives of Environ. Contam. Toxicol.* 42:292-302.
100. Driscoll, S.K., C.A. Menzie, A. Burton, J. Williams, A. Coleman. 2002. Assessing the toxicity of sediments at MGP sites to aquatic invertebrates, in *GTI's Conference on Site Remediation and Environmental Management in the Utility Industry*", Orlando, Florida, December 2-6, 2001. Published by the Gas Technology Institute, Des Plaines, IL, USA.
101. Burton, G.A., Jr. 2002. Sediment quality criteria in use around the world. *Limnology* 3:65-76.
102. Diamond, J., G. A. Burton, and J. Scott. 2002. Procedures for collection, storing, and manipulating sediments and interstitial waters for chemical and toxicological analyses. In: R. Whittemore (editor) *Handbook on Sediment Quality*. Water Environment Federation special publication, Fairfax, VA. pp. 139-197.
103. Grapentine, L., J. Anerson, G.A. Burton, P. Chapman, C. DeBarros, C. Gaudet, G. Johnson, C. Marvin, D. Milani, S. Painter, T. Pascoe, T. Reynoldson, L. Richman, K. Solomon, R. Turner. 2002. Development of a decision making framework for sediment assessment. *Human and Ecological Risk Assessment* 8: 1641-1655.
104. Burton, G.A., Jr. , D.L. Denton, K. Ho, and D.S. Ireland. 2002. Test methods for measuring sediment toxicity, In, Hoffman, D., et al. (eds.), *Handbook of Ecotoxicology*, 2nd ed. CRC/Lewis Publishers, Boca Raton, FL. pp. 111-150.
105. Hoffman, D.J., B.A. Rattner, G.A. Burton, Jr., J. Cairns, Jr. (eds.) 2002. *Handbook of Ecotoxicology*, 2nd edition. Lewis Publishers. Boca Raton, FL. 1290 p.

106. Burton, G.A., Jr., P. Chapman, and E. Smith. 2002. Weight of Evidence Approaches for Assessing Ecosystem Impairment. *Human and Ecological Risk Assessment* 8:1657-1673.
107. Burton, G.A., Jr., G. E. Batley, P.M. Chapman, V.E. Forbes, E.P. Smith, T. Reynoldson, C.E. Schlekat, P.J. den Besten, A.J. Bailer, A.S. Green and R.L. Dwyer. 2002. A Weight-of-Evidence Framework for Assessing Sediment (Or Other) Contamination: Improving Certainty in the Decision-Making Process. *Human and Ecological Risk Assessment* 8:1675-1696.
108. Batley, G.E., G.A. Burton, P.M. Chapman, V.E. Forbes. 2002. Uncertainties in sediment quality weight of evidence (WOE) assessments. *Human and Ecological Risk Assessment* 8:1517-1548.
109. McClain, J.S., J.T. Oris, G.A. Burton, Jr., D. Lattier. 2003. *In situ* exposures of rainbow trout *Oncorhynchus mykiss* in the Little Scioto River (Ohio): Multiple molecular biomarkers for assessment of contaminant exposure. *Environ. Toxicol. Chem.* 22:361-370.
110. Burton, G.A., Jr., and Peter Landrum. 2003. Toxicity of Sediments, In, G.V. Middleton, M.J. Church, M. Conigilo, L.A. Hardie and F.J. Longstaffe, Eds, *Encyclopedia of Sediments and Sedimentary Rocks*, Kluwer Academic Publishers, Dordrecht pp. 748-751.
111. Burton GA, Jr., Rowland CD, Greenberg MS, Lavoie DR, Nordstrom JF, Eggert LM. 2003. A tiered, weight-of-evidence approach for evaluating aquatic ecosystems, in, M. Munawar (ed.), *Sediment Quality Assessment and Management: Insight and Progress*, 2003. *Ecovision World Monograph Series*, Aquatic Ecosystem Health and Management Society Publ., Hamilton, Ontario. pp. 3-21.
112. Doe, K.G., G.A. Burton, Jr., and K.T. Ho. 2003. Pore water toxicity testing: an overview. In, R.S. Carr and M Nipper (eds.) *Porewater Toxicity Testing: Biological, Chemical and Ecological Considerations*. Pellston Workshop Proceedings. SETAC Press. Pensacola, FL., pp. 125-142.
113. Nipper, M., G.A. Burton, D.C. Chapman, K.G. Doe, M. Hamer, K.T. Ho. 2003. Issues and recommendations for porewater toxicity testing: methodological uncertainties, confounding factors and toxicity identification evaluation procedures. In, R.S. Carr and M Nipper (eds.) *Porewater Toxicity Testing: Biological, Chemical and Ecological Considerations*. Pellston Workshop Proceedings. SETAC Press. Pensacola, FL. Pp. 143-162.
114. Nipper, M., R. Scott Carr, W. Adams, W. Berry, G.A. Burton, K. Ho, D.D. MacDonald, R. Scroggins, P.V. Winger. 2003. Recommendations for research related to biological, chemical and ecological aspects of pore water: the way forward. In, R.S. Carr and M Nipper (eds.) *Porewater Toxicity Testing: Biological, Chemical and Methodological Considerations*. Pellston Workshop Proceedings. SETAC Press. Pensacola, FL. Pp. 285-292.
115. Leppanen MT, Landrum PF, Kukkonen JVK, Greenberg MS, Burton GA, Robinson SD, Gossiaux DC. 2003. Investigating the role of desorption in bioavailability of sediment-associated 3,4,3',4'-tetrachlorobiphenyl in benthic invertebrates. *Environ Toxicol Chem* 22:2861-2872.
116. Landrum PF, Leppanen M, Robinson SD, Gossiaux DC, Burton GA, Greenberg M, Kukkonen JVK, Eadie BJ, Lansing MB. Effect of 3,4,3',4'-tetrachlorobiphenyl on the reworking behavior of *Lumbriculus variegatus* exposed to contaminated sediment. 2004. *Environ. Toxicol. Chem.* 23:178-186.
117. Landrum PF, Leppanen M, Robinson SD, Gossiaux DC, Burton GA, Greenberg M, Kukkonen JVK, Eadie BJ, Lansing MB. 2004. Comparing behavioral and chronic endpoints to evaluate the response of *Lumbriculus variegatus* to 3,4,3',4'-tetrachlorobiphenyl. *Environ. Toxicol. Chem.* 23:187-194. Burton GA Jr, Nordstrom JF. 2004. An *in situ* toxicity identification evaluation method. I. Lab Validation. *Environ Toxicol Chem* 23:2844-2850.
118. Burton GA Jr, Nordstrom JF. 2004. An *in situ* toxicity identification evaluation method. Part I. Laboratory validation. *Environ Toxicol Chem* 23:2844-2850.
119. Burton GA Jr, Nordstrom JF. 2004. An *in situ* toxicity identification evaluation method. II. Field Validation. *Environ Toxicol Chem* 23:2851-2855.
120. Burton GA Jr., Greenberg MS, Rowland CD, Irvine CA, Lavoie DR, Brooker JA, Eggert LM, Raymer DFN, McWilliam RA. 2005. *In situ* exposures using caged organisms: a multi-compartment approach to detect aquatic toxicity and bioaccumulation. *Environ. Pollut.* 134:133-144.
121. Greenberg MS, Burton GA Jr, Landrum PF, Leppanen MT, Kukkonen JVK. 2005. Desorption kinetics of fluoranthene and trifluralin from Lake Huron and Lake Erie sediments. *Environ Toxicol Chem* 24:31-39.
122. Burton GA Jr, Nguyen LTH, Janssen C, Baudo R, McWilliam R, Bossuyt B, Beltrami M, Green A. 2005. Field validation of sediment zinc toxicity. *Environ Toxicol. Chem* 24:541-553.

123. Wenning RJ, Adams WJ, Batley GE, Berry WJ, Birge WJ, Bridges TS, Burton GA, Chapman PM, Douglas WS, Engler RM, Ingersoll CG, Moore DW, Stahl RG, Word JQ. 2005. Using Sediment Assessment Tools and a Weight of Evidence Approach, in, Wenning RJ, Batley GE, Ingersoll CG, Moore, DW (eds.), Use of Sediment Quality Guidelines and Related Tools for the Assessment of Contaminated Sediments. SETAC Press, Pensacola, FL pp. 11-38.
124. Engler, RM, Long ER, Swartz R, Di Toro D, Ingersoll C, Burgess RM, Gries T, Berry WJ, Burton GA, O'Connor T, Chapman, PM, Field LJ, Porebski LM. 2005. Chronology of Sediment Quality Assessment Development in North America. Use of Sediment Quality Guidelines and Related Tools for the Assessment of Contaminated Sediments. SETAC Press, Pensacola, FL pp. 311-345.
125. Adams W, Green A, Ahlf W, Brown SS, Burton GA, Crane M, Gouguet R, Chadwick B, Reynoldson T, Savitz JD, Sibly PK. 2005. Using Sediment Assessment Tools and a Weight of Evidence Approach, in, Wenning RJ, Batley GE, Ingersoll CG, Moore, DW (eds.), Use of Sediment Quality Guidelines and Related Tools for the Assessment of Contaminated Sediments. SETAC Press, Pensacola, FL pp. 163-226.
126. Burton GA Jr, Baird D, Culp J, Maltby L. 2005. In situ Based Effects Monitoring: Linkages to Ecological Consequences. A Workshop Summary. Society of Environmental Toxicology & Chemistry GLOBE Newsletter.
127. Nordstrom JF, Rowland CD, Burton GA. 2005. Case study 6.29: Sediment/porewater in situ toxicity identification evaluation case study: Little Scioto River, Marion, Ohio, USA., in Norberg-King TJ, Ausley LW, Burton DT, Goodfellow WL, Miller JL, Waller WT editors, Toxicity Reduction and Toxicity Identification Evaluations for Effluents, Ambient Waters, and Other Aqueous Media. SETAC Publishers, Pensacola, FL. pp 328-333.
128. Ling, N., Hickey, CW, Burton GA. 1998. Are Antarctic organisms sensitive to anthropogenic pollutants? New Zealand Natural Science. 23:106-112.
129. Roberts AP, JT Oris, GA Burton, WH Clements. 2005. Gene Expression in Caged Fish as a First-Tier Indicator of Contaminant Exposure in Streams. Environ. Toxicol Chem. 24: 3092-3098
130. Custer KW, Burton GA, Coleho R, Smith P. 2006. Determining stressor presence in streams receiving urban and agriculture runoff: development of a benthic in situ toxicity identification evaluation (BiTIE) Method. Environ Toxicol Chem 25:2299-2305.
131. Leppänen MT, T Ristola, J Johnson, GA Burton Jr. 2006. Applying adult emergence as an endpoint in a post-exposure laboratory test using two midge species (Diptera: Chironomidae). Chemosphere 64:1667-1674.
132. Kapo, K., Burton GA. 2006. A geographic information system based weights-of-evidence approach for diagnosing aquatic ecosystem impairment. Environ Toxicol Chem 25:2237-2249.
133. Maltby L, Burton GA. 2006. Editorial: Field based effects measures. Environ Toxicol Chem 25:2261-2262.
134. Sterner, TR, Goodyear CD, Robinson PJ, Mattie DR, Burton GA. 2006. Analysis of algorithms predicting blood:air and tissue:blood partition coefficients from solvent partition coefficients. J. Toxicol. Environ. Health, Part A, 69:1441-1479.
135. Norberg-King TJ, Sibley PK, Burton GA, Ingersoll CG, Kemble NE, Ireland DS, Mount DR, Rowland CA. 2006. Interlaboratory evaluation of the *Hyalella azteca* and *Chironomus tentans* short term and long term sediment toxicity tests. Environ Toxicol Chem 25:2662-2674.
136. Burton GA. 2006. Editorial: No longer just déjà vu. Environ Toxicol Chem 25: 2819-2820.
137. Burton GA, Green A, Baudo R, Forbes V, Nguyen LTH, Janssen CR, Kukkonen J, Leppanen M, Maltby L, Soares A, Kapo K, Smith P, Dunning J. 2007. Characterizing sediment acid volatile sulfide concentrations in European streams. Environ Toxicol Chem 26:1-12.
138. Baird, DJ, Burton GA, Culp JM, Maltby L. 2007. Summary and recommendations from a SETAC Pellston Workshop on in situ measures of ecological effects. Integr Environ Assess Mgmt 3:275-278.
139. Crane M, G. Allen Burton, Joseph Culp, Marc S. Greenberg, Kelly R. Munkittrick, Rui G.L.G. Ribeiro, Michael H. Salazar and Sylvie D. St-Jean. 2007. Review of In Situ Approaches for Stressor and Effect Diagnosis. Integr Environ Assess Mgmt. 3:234-245.

140. Custer KW, Burton GA Jr. 2007. *Isonychia* spp. and macroinvertebrate community responses to stressors in streams utilizing the benthic in situ toxicity identification evaluation (BiTIE) method. *Environ Pollut.* 151:101-109
141. National Research Council (A. Burton coauthor). 2007. *Sediment Dredging at Superfund Megasites: Assessing the Effectiveness*. National Academies Press. Washington DC
142. Dale VH, Biddinger GR, Newman MC, Oris JT, Suter GW, Thompson T, Armitage TM, Meyer JL, Allen-King RM, Benfield EF, Burton GA, Chapman PM, Conquest LL, Fernandez IJ, Landis WG, Master LL, Mitsch WJ, Mueller TC, Rabeni CF, Rodewald AD, Sanders JG, van Heerden IL. 2008. Enhancing the ecological risk assessment process. *Integr Environ Assess & Mgmt* 4:306-313.
143. Gustavson, K, Burton GA, Francingues N, Reible D, Wolfe J, Vorhees D. 2008. Evaluating the effectiveness of contaminated sediment dredging. (Feature Article) *Environ Sci Technol* July 15, pp. 5042-5047.
144. Kapo K, Burton GA, De Zwart D, Posthuma L., Dyer S. 2008. Quantitative multiple lines of evidence for fish species loss in Ohio: a comparison of two eco-epidemiological methods. *Environ Sci Technol.* 42:9412-9418.
145. Hammerschmidt CR and Burton GA Jr. 2010. Measurements of acid volatile sulfide and simultaneously extracted metals are irreproducible among laboratories. *Environ Toxicol Chem* 29:1453-1456.
146. Cloran CE, Burton GA, Hammerschmidt CR, Taulbee WK, Custer KW, Bowman KL. 2010. Effects of suspended solids and dissolved organic carbon on nickel toxicity. *Environ Toxicol Chem* 29:1781-1787.
147. Burton GA, Scavia D, Luoma SN, Love NG, Austin J. 2010. Leverage the Great Lakes Water Assets for Economic Growth. *Smart Water Use and Leveraging Water Assets to Boost Next Economy: Imperatives for the Nation and Opportunities for Auto-Impacted Communities*, In, Brookings Metropolitan Policy Program, *Rebuilding Auto Communities and Older Industrial Metros in the Great Lakes*. Brookings Institute. Washington DC. pp. 1-8. http://www.brookings.edu/papers/2010/0927_great_lakes.aspx
148. Burton GA. Metal bioavailability in sediments. 2010. *Crit Rev Environ Sci Technol* 40:852-907.
149. Foster HR, Burton GA, Basu N., Werner EE. 2010. Chronic exposure to fluoxetine (Prozac) causes developmental delays in *Rana pipiens* larvae. *Environ Toxicol Chem* 29:2845-2850.
150. Burton GA and Johnston EJ. 2010. Assessing contaminated sediments in the context of multiple stressors. *Environ Toxicol Chem* 29:2625-2643.
151. Nguyen LTH, GA Burton, CE Schlekot, CR Janssen. 2011. Nickel sediment toxicity: Role of Acid Volatile Sulfide. *Environmental Toxicology & Chemistry* 30:162-172.
152. Costello DM, Burton GA, Hammerschmidt CR, Rogevich EC and Schlekot CE. 2011. Nickel phase partitioning and toxicity in field-deployed sediments. *Environ Sci Technol* 45:5798-5805
153. Burton, GA, Jr. 2011. Unknown, unknowns, the relevance paradox and smart ecosystem management. *Michigan Association of Environmental Professionals, Quarterly Newsletter*. Fall, pp. 9-11. http://www.maep.org/docs/MAEP_Fall_Newsletter_2011.pdf
154. Burton GA, Jr. 2011. *Forward for "Ecological Impacts of Toxic Chemicals"* Bentham Books. Francisco S.-Bayoo, Paul J. van den Brink Reiner M Mann eds. DOI: 10.2174/97816080512121110101.
155. Burton, GA, Rosen G, Chadwick B, Greenberg M, Taulbee K, Lotufo GR, Reible D. 2012. A sediment ecotoxicity assessment platform for in situ measures of chemistry, bioaccumulation and toxicity. Part 1: System description and proof of concept. *Environ Pollution* 162:449-456.
156. Rosen G, Chadwick DB, Burton GA, Taulbee WK, Greenberg MS, Lotufo GM, Reible DD. 2012. A sediment ecotoxicity assessment platform for in situ measures of chemistry, bioaccumulation and toxicity, Part 2: Integrated application to a shallow estuary. *Environ Pollution* 162:457-465.
157. Burton GA, van Wensem J. 2012. Summary of the 5th SETAC Europe Special Science Symposium: Ecosystem Services-From Policy to Practice. *SETAC Globe* 13 (3): <http://www.setac.org/globe/2012/march/sesss-summary.html>
158. Burton GA, De Zwart D, Diamond J, Dyer S, Kapo KE, Liess M, Posthuma L. 2012. Making ecosystem reality checks the status quo. *Environ Toxicol Chem* 31: 459-468.
159. Li, M., Burton GA, Costello DM. 2012. Interactive effects of phosphorus and copper on *Hyalella azteca* and periphyton. *Ecotoxicology and Environmental Safety* 83:41-46.

160. Kochersberger JP, GA Burton, K Custer. 2012. Short-term macroinvertebrate recruitment and sediment accumulation: A novel field chamber approach. *Environ Toxicol Chem* 31:1098-1106.
161. Costello DM, Burton GA, Hammerschmidt CR, Taulbee, WK. 2012. Evaluating the performance of diffusive gradients in thin films (DGTs) for predicting Ni sediment toxicity. *Environ Sci Technol* 46:10239-10246.
162. Allan JD, P.B. McIntyre*, S.D.P. Smith*, B.S. Halpern, G. Boyer, A. Buchsbaum, A. Burton, L. Campbell, L. Chadderton, J. Ciborowski, P. Doran, T. Eder, D.M. Infante, L.B. Johnson, C.G. Joseph, A.L. Marino, A. Prusevich, J. Read, J. Rose, E. Rutherford, S. Sowa, A. Steinman. 2012. Joint analysis of stressors and ecosystems services to enhance restoration effectiveness. *Proc Natural Acad Sci* 110:372-377.
163. Burton A. 2013. Sediment ecotoxicity. In: Féraud JF and Blaise C (eds.) *Encyclopedia of Aquatic Ecotoxicology*, Volume 2, Springer, Dordrecht, The Netherlands, pages 1003-1014.
164. Burton GA Jr. 2013. Assessing sediment toxicity: Past, present, and future. *Environ Toxicol Chem* 32:1438-1440.
165. Lotufo GR, GA Burton, G Rosen, JW Fleeger. 2014. Assessing biological effects, in D.D. Reible (ed.) *Process, Assessment and Remediation of Contaminated Sediments.*, doi:10.1007/978-1-4614-6726-7_6/ Springer Science+Business Media. New York., pp. 131-175.
166. Wenning RJ, Burton GA, Ward H, Lynch J. 2014. The importance of the scientific peer review at SETAC. *Environ Toxicol Chem* 33:2-3 (Editorial)
167. Burton, GA. 2014. Announcing the Perspectives Column. *Environ Toxicol Chem* 33: 4.
168. Mauter M, Alvarez P, Burton GA, Cafaro D, Chen W, Jiang G, Li Q, Pittock J, Reible D, Schnoor J. 2014. Regional variation in water-related impacts of shale gas development and implications for emerging international plays. *Environ Sci Technol* (Feature article): 48:8298-8306. [Dx.doi.org/10.1021/es405432k](https://doi.org/10.1021/es405432k)
- 169 Costello DM, Burton GA. 2014. Response of stream ecosystem function and structure to sediment metal: Context-dependency and variation among endpoints. *Elementa* doi/10.12952/journal.elementa.000030
170. Burton, GA, Basu N, Ellis B, Kapo K, Entekin S, Nadelhoffer K. 2014. Hydraulic “Fracking”: Are surface water impacts an ecological concern? *Environ Toxicol Chem* 33:1679-1689.
171. Smith, Sigrid DP, Peter B. McIntyre, Benjamin S. Halpern, Roger M. Cooke, Adrienne L. Marino, Gregory L. Boyer, Andy Buchsbaum, G.A. Burton Jr., Linda M. Campbell, Jan J.H. Ciborowski, Patrick J. Doran, Dana M. Infante, Lucinda B. Johnson, Jennifer G. Read, Joan B. Rose, Edward S. Rutherford, Alan D. Steinman, and J. David Allan. 2014. Rating impacts in a multi-stressor world: a quantitative assessment of 50 stressors affecting the Great Lakes. *Ecological Applications* 25:717-728
172. Xie Minwei, Brooke A. Jarrett, Cecile Da Silva-Cadoux, Kyle J. Fetters, G. Allen Burton Jr., Jean-François Gaillard, Aaron I. Packman. 2015. Coupled effects of hydrodynamics and biogeochemistry on Zn mobility and speciation in highly contaminated sediments. *Environ Sci Technol* 49:5346-5353. <http://pubs.acs.org/doi/full/10.1021/acs.est.5b00416>
173. Costello, DM, CR Hammerschmidt, and GA Burton. 2015. Copper sediment toxicity and partitioning during oxidation in a flow-through flume. *Environmental Science & Technology* 49(11): 6926-6933.
174. Danner KM, Hammerschmidt CR, Costello DM, Burton GA Jr. 2015. Copper and Nickel Partitioning with Nanoscale Goethite Under Variable Aquatic Conditions. *Environ Toxicol Chem* 34(8):1705-1710. DOI: 10.1002/etc.2977
175. Burton GA. 2015. Losing sight of science in the regulatory push to ban microbeads from consumer products and industrial use. *Integrated Environ Assess Mgmt.* 11(3):346-347. DOI: 10.1002/ieam.1645
176. Fairbrother, Anne, GA Burton, SJ Klaine, DE Powell, CA Staples, EM Mihaich, KB Woodburn, FAPC Gobas. 2015. Characterization of ecological risks from environmental releases of decamethylcyclopentasiloxane (D5). *Environ Toxicol Chem* 34:2715-2722.
177. Klaus, Jaclyn E, Chad R. Hammerschmidt, David M. Costello, G. Allen Burton, Jr. 2016. Net methylmercury production in two contrasting stream sediments and associated accumulation and toxicity to periphyton. *Environ Toxicol Chem* DOI: 10.1002/etc.3324
178. Custer KW, Burton GA Jr, Kochersberger J, Anderson P, Fetters K, Hummel S. 2016. Macroinvertebrate responses to nickel in multi-system exposures. *Environ Toxicol Chem* 35:101-114
179. Custer KW, G. Allen Burton, Chad R Hammerschmidt 2016. Nickel toxicity to benthic organisms: The role of dissolved organic carbon, suspended solids, and route of exposure. *Environ Poll.* 208:309-317
180. Fetters KJ, Costello DM, Hammerschmidt CR and Burton GA Jr. 2016. Toxicological effects of short-term resuspension of metal contaminated freshwater and marine sediments. *Environ Toxicol Chem* DOI: 0.001/etc.3225

181. Schlekot Christian, Garman E, Vangheluwe M, Burton GA Jr. 2016. Development of a bioavailability-based risk assessment approach for nickel in freshwater sediments. *Integr Environ Assess & Mgmt*. DOI: 10.1002/ieam.17720
182. Koelmans B, Bakir A, Burton GA, Janseen, C. 2016. Microplastic as a Vector for Chemicals in the Aquatic Environment. Critical Review and Model-Supported Re-interpretation of Empirical Studies. *Environ Sci Technol* DOI: 10.1021/acs.est.5b06069
183. Posthuma L, Dyer SD, de Zwart D, Kapo K, Holmes CM, Burton, GA, Jr. 2016. Eco-epidemiology of aquatic ecosystems: Separating chemicals from multiple stressors. *Sci Total Environ*

Submitted or in Press

Wang Z, Gilbert C. S. Lui, Guang-Jie Zhou, G. Allen Burton, Jr., Kenneth M. Y. Leung. 2015. Thermal extremes can intensify chemical toxicity to freshwater organisms and hence exacerbate their impact to the biological community. *Environ Sci Technol* (submitted)

Yang, Jianghua Yang, Yuwei Xie, Chao Song, Wanwan Zhang, G. Allen Burton Jr, Xiaowei Zhang. 2015 Aquatic organism taxonomy: Improved Next-Generation Sequencing enhances DNA barcode capture and DNA metabarcoding. *Environ Sci Technol*. (submitted)

Fetters KJ, Costello DM, Hammerschmidt CR, Xie M, Packman A, Burton GA Jr. 2015. Physical and biological resuspension effects from metal contaminated sediments. *Environ Pollut* (submitted).

Steigmeyer, August, GA Burton Jr., X Zhang. 2016. An in situ toxicity identification and evaluation (iTIE) water analysis system: Laboratory validation. *Environ Toxicol Chem* (submitted).

Kinsman-Costello, Lauren E., Cody Sheik, Nathan Sheldon, Allen Burton, David Costello, and Gregory Dick/ 2016. Sediment Biogeochemistry and Microbial Diversity in a Submerged Sinkhole Ecosystem, Lake Huron, MI. *Geobiology* (submitted)

Xie, M.; Wang, N.; Burton, G.A.; Gaillard, J.-F.; Packman, A.I., 2016. Effects of Overlying Hydrodynamics on Cu Mobility in Low Permeability Estuarine Sediments. *Environ. Sci. Technol.* (submitted)

Hudson M.L., Costello, D., and Burton, G.A. 2015. Species-specific trophic and transfer (or accumulation?) of gold nanomaterials in *Hyalella azteca* and *Lymnea stagnalis*. *Bull Env Toxicol Contam* (in preparation)

Patents

Rapidly Amplified Polymorphic DNA Profiling: A Reliable/Sensitive Bioindicator of Ecosystem Health. Patent Pending. 1999. D. Sternberg, D. Krane, and G.A. Burton.

In situ Sediment Ecotoxicity Assessment System. Patent No. US 8,011,239 B1. 2011. Chadwick, DB, Rosen GH, Burton GA. U.S. Navy and University of Michigan.

Abstracts (from conference presentations since 2008):

Burton, G.A. 2008. Assessing Environmental Risk in Aquatic Systems: Realistic and Efficient Approaches for Effective Decision Making. Jeddah Environmental Forum and Exhibition. Jeddah, Saudi Arabia.

Custer, K, Taulbee K, Burton A, Anderson P, Bessom S, Cloran C, Ellis K, Kochersberger J, Schlekot C. 2008. Nickel effects on indigenous and surrogate organisms in sediment: species growth, survival, and community responses. *Abstr Annu Meeting SETAC Europe*. Warsaw Poland.

Taulbee K, Burton A, Custer, K., Smith P, Anderson P, Bessom S, Cloran C, Ellis K, Kochersberger J, Delbeke K. 2008. Copper flux exposure and effects in freshwater sediments. *Abstr Annu Meeting SETAC Europe*. Warsaw Poland.

Slye, J, Smith, PS , Burton A, Kennedy J, LaPoint T, Ortego L.. 2008. Sediment Recolonization Study to Examine Potential Fipronil Effects on Benthic Macroinvertebrates in Freshwater Ecosystems in the Southern United States. Abstr Annu Meeting SETAC Europe. Warsaw Poland.

Custer KW, Taulbee K, Burton GA, Anderson P, Bessom S, Cloran C, Ellis K, Kochersberger J, Schlekot, C. 2008 Indigenous and surrogate organism responses to nickel in sediment and water exposures. Abstr Annu Meeting North American Benthological Society. Salt Lake City, NV.

Kochersberger JP, Burton GA, Custer K, Taulbee K, Anderson P, Cloran C, Simpson K. 2008. Linking embeddedness and macroinvertebrate health in two southwest Ohio streams. Abstr Annu Meeting North American Benthological Society. Salt Lake City, NV.

Kapo KK, Burton AG, Pemberton E, Wells C, Whitehouse P. 2008. A multi-stressor regional risk assessment for aquatic macrofauna in England and Wales applying GIS-based WOE/WLR methodology. Abstr. Annu Meeting Soc. Environ Toxicol Chem. Sydney Australia.

Custer, K, Taulbee K, Burton A, Anderson P, Bessom S, Cloran C, Ellis K, Kochersberger J, Schlekot C. 2008. Nickel spiked sediments and other bioavailability factors changing over time in situ in Southwest Ohio. Abstr. Annu Meeting Soc. Environ Toxicol Chem. Sydney Australia.

Custer KW, Burton GA, Cloran C, Anderson P, Taulbee K, Hammerschmidt C, Schlekot C. 2008. Nickel effects examining bioavailability factors in sediments and water-only tests. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Rosen G, Chadwick DB, Greenberg M, Burton GA. 2008. Linkage of exposure with biological effects using in situ-based monitoring tools in marine and estuarine systems. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Cloran CE, Burton GA, Taulbee K, Custer K, Hammerschmidt C, Schlekot. 2008. Investigating Nickel Flux and Toxicity in Clay Sediments with Batch and Stream Recirculating Flume Experiments. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Hammerschmidt CR, Burton GA. 2008. Inter-laboratory Comparison of Acid-Volatile Sulfide and Simultaneously Extracted Metals in Freshwater Sediments. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Bessom SM, Hammerschmidt CR, Burton GA. 2008. Nickel uptake and toxicity to lotic periphyton communities. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Slye JL, Smith P, Holes CM, Ortego LS, La Point TW, Burton GA. 2008. Sediment recolonization study to examine potential fipronil effects on benthic macroinvertebrates in freshwater ecosystems in the southern United States. Abstr Annu Meeting Soc Environ Toxicol Chem. Tampa, FL.

Custer KW, Burton GA, Anderson P, Fetters K, Hummel S, Kochersberger J, Taulbee K, Schlekot C. 2009. Single species growth and benthic macroinvertebrate community responses to nickel. North Am Benthol Soc. Grand Rapids, MI.

Custer KW, Burton GA, Taulbee K, Fetters K, Hummel S, Schlekot C. 2009. Aquatic insect responses to nickel spiked sediments: in situ and laboratory exposures. Intern Assoc Great Lakes Res. Toledo OH.

Kapo K, Burton GA. 2009. Delineation of stressor response associations using regional spatial analysis of archival Ohio watershed data. Intern Assoc Great Lakes Res. Toledo OH.

Posthuma L, deZwart D, Mulder C, Kapo K, Burton A, Whitehouse P, Dyer S, Murray J. June 2009. Ecoepidemiology: A comparison of methods. Ann Meeting Europe Soc Env Toxicol Chem. Goteborg Sweden.

Custer, K.W., G.A. Burton, Jr., K. Taulbee, K. Fetters, S. Hummel, C. Schlekat. 2009. Sediment nickel effects with field collected aquatic insects during *in situ* and laboratory exposures. The Society of Environmental Toxicology and Chemistry, Europe Meeting, Goteborg, Sweden.

Kapo K, Burton GA, Rosen G, Chadwick DG, Greenberg M. 2009. Integrated approach for assessing ecological risk and recovery of contaminated sediment sites: a case study for the San Diego Harbor Naval Station. Ann Meeting Soc Environ Toxicol Chem. New Orleans LA.

Custer, K.W., G.A. Burton, Jr., P. Anderson, K. Fetters, S. Hummel, J. Kochersberger, K. Taulbee. 2009. Single species growth and benthic macroinvertebrate community responses to nickel. The North American Benthological Society's Annual Meeting, Grand Rapids, MI, USA.

Custer KW, Burton GA. 2010. Dissolved organic carbon affects nickel toxicity to *Lymnaea stagnalis* and *Daphnia magna*. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Seville, Spain.

Custer KW, Burton GA, Fetters K, Hummel S, Weller R. 2010. Effects of sediment characteristics on nickel bioavailability and benthic communities. Abstr. Annu. Meeting North American Benthological Society and American Society of Limnology & Oceanography. Sante Fe, NM.

Costello DM, Burton GA, Hammerschmidt CR, Honick AS, Custer KW, Rogevich EC, Schlekat CE. 2010. Field testing of nickel contaminated sediments: Contaminant flux, chemical speciation and toxicity to aquatic invertebrates. Abstr. Annu. Meeting North American Benthological Society and American Society of Limnology & Oceanography. Sante Fe, NM.

Allan JD, McIntyre PB, Halpern B, Boyer G, Buchsbaum A, Burton A, et al. 2010. The Great Lakes Threat Mapping Project: A new tool to aid in prioritization. Abstr. Annu. Meeting International Assoc Great Lakes Research. Toronto, Canada.

Eggleston M, Costello D, A. Burton. 2010. Impact of sediment resuspension events on the availability of heavy metals in freshwater sediments. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Portland, OR.

Costello D., B. Burton. C. Hammerschmidt. 2010. Field-testing of nickel contaminated sediments: nickel flux, chemical speciation, and toxicity to aquatic invertebrates. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Portland, OR.

Rosen, G., Chadwick B., Burton, G., Greenberg M. 2010. Evaluation of an integrated exposure and effects assessment approach involving *in situ* and laboratory tools along three contamination gradients. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Portland, OR.

Taulbee K, Burton G., Custer K. 2010. Bioavailability of copper and nickel in sulfidic and non-sulfidic freshwater sediments. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Portland, OR.

Custer K., Burton G., Hammerschmidt C. 2010. Nickel toxicity to *Lymnaea stagnalis* and *Hyalella azteca* in sediment, water and food exposures. Abstr. Annu. Meeting Society of Environmental Toxicology and Chemistry, Portland, OR.

Costello D, Burton G, Taulbee K, Custer K. 2011. Bioavailability of nickel and copper in sulfidic and non-sulfidic freshwater sediments. Abstr. Ann Meeting American Soc Limnology & Oceanography. San Juan, Puerto Rico.

Allan JD, McIntyre PB, Halpern B, Boyeer G, Buschsbaum A, Burton A et al. Prioritizing restoration and conservation opportunities in the Great Lakes. Abstr. Coastal Zone 2011 Conference. July 2011 Chicago.

Costello D, Burton G, CR Hammerschmidt, Taulbee K. 2011. Evaluating the performance of passive sampling devices (DGTs) for predicting Ni sediment toxicity. Abstr. Ann Meeting European Soc Environmental Toxicology & Chemistry. Milan, Italy.

Custer K, GA Burton, Jr., CR Hammerschmidt¹, K Fetters, S Hummel. 2011. Dissolved organic carbon affects nickel toxicity to *Lymnaea stagnalis* and *Daphnia magna*. Abstr. Ann Meeting European Soc Environmental Toxicology & Chemistry. Milan, Italy.

Vangheluwe M, I. Vercaigne, J Besser, W Brumbaugh, C Ingersoll, GA Burton, E Rogevich, C. Schlekot. 2011. An integrated effects assessment of Nickel in freshwater sediments. Abstr. Ann Meeting European Soc Environmental Toxicology & Chemistry. Milan, Italy.

Fairbrother A, Burton GA, Klaine SJ. 2011. Toxicity of decamethylcyclotrisiloxane (D5) to aquatic and terrestrial environments. Abstr. Annu Meeting Soc Environ Toxicol Chem. Boston, MA.

Costello, DM and GA Burton. 2011. Biofilm response to metal-contaminated sediment depends on stream and sediment context. North American Meeting of the Society of Environmental Toxicology and Chemistry, Boston, MA.

Vangheluwe, M, JM Besser, WG Brumbaugh, C Ingersoll, GA Burton, DM Costello, CR Hammerschmidt, EC Rogevich, CE Schlekot. 2011. Scientific basis for the derivation of site-specific environmental quality standards for nickel in sediments. International Conference on Deriving Environmental Quality Standards for the Protection of Aquatic Ecosystems, Hong Kong.

Costello, DM, GA Burton, CR Hammerschmidt, and WK Taulbee. 2011. Evaluating the performance of passive-sampling devices (DGTs) for predicting Ni sediment toxicity. International Conference on the Biogeochemistry of Trace Elements, Florence, Italy.

Costello, DM and GA Burton. 2011. Biofilm response to metal-contaminated sediments is stream dependent. Annual Meeting of the North American Benthological Society, Providence, RI.

Burton GA Jr., Costello D, Farley K, Carbonaro R, Rader K, Gailani J, Schroeder P, Kim S-C 2011. Predicting fate and effects of resuspended metal contaminated sediments. ER-1746. SERDP Annual Meeting, Washington DC.

Brooke J, Fetters K, Giannetto M, Da Silva-Cadoux C, Packman AI, Gaillard J-F, Burton GA. 2011. Coupling between pore water fluxes, structural heterogeneity, and biogeochemical processes controls contaminant mobility, bioavailability and toxicity in sediments. SERDP Project 1745. SERDP-ESTCP Annual Meeting. Washington DC.

Rosen, G, Chadwick DB, Burton GA,. 2011. Demonstration and commercialization of the sediment ecosystem assessment protocol ER-201130. SERDP-ESTCP Annual Meeting. Washington DC.

Rosen, G, Chadwick DB, Burton GA,. 2012. Demonstration and commercialization of the sediment ecosystem assessment protocol ER-201130. ESTCP Interim Project Review. Arlington VA.

Burton GA Jr., Costello D, Farley K, Carbonaro R, Rader K, Gailani J, Schroeder P, Kim S-C 2012. Predicting fate and effects of resuspended metal contaminated sediments. ER-1746. SERDP Interim Project Review. Arlington VA.

Costello, D.M.; Burton, G.A. 2012. Variation in biofilm response to metal-contaminated sediments – the importance of ecosystem context for managing polluted ecosystems. Annual Meeting Society of Freshwater Science. Louisville, KY.

Harrison, A.M.; Costello, D.M.; Burton, G.A. 2012. Experiments measuring bioavailability in oxic and spiked sediments. Annual Meeting Society of Freshwater Science. Louisville, KY.

Wiitala, M.M.; Costello, D.M.; Burton, G.A. 2012. Effects of anthropogenic sedimentation of benthic macroinvertebrate assemblages in the upper peninsula of Michigan. Annual Meeting Society of Freshwater Science. Louisville, KY.

Nelson WA, Burton GA Jr, Steinman AD. 2012. Sediment toxicity in a Great Lakes Area of Concern: An in situ bioassay with *Chironomus dilutus* and *Hyalella azteca*. Annual Meeting Society of Freshwater Science. Louisville, KY.

Burton, GA. 2012. Improving assessments of invertebrate metal toxicity through realistic, multi-compartment, exposure scenarios. Aquatic Toxicity Symposium, Holden Village, WA. June. (invited)

Mendonça R, A Harrison, D Costello, GA Burton, C Hammerschmidt, L Podzikowski. 2012. Experiments measuring bioavailability in oxic and spike sediments. XII Congresso Brasileiro de Exotoxicologia. Recife, Brazil. Sept. 2012.

Burton GA, D Costello. 2012. Improving our Understanding of Ecologically Significant Metal Effects in Aquatic Benthos. Annu Meeting N Amer Soc Environ Toxicol Chem. Long Beach CA. Nov.

Posthuma L, D DeZwart, D Sigm, J Verhoeven, SD Dyeer, K Kapo, GA Burton. 2012. From substance- to societal solutions in risk assessment and sustainable risk reduction. Annu Meeting N Amer Soc Environ Toxicol Chem. Long Beach CA. Nov.

Costello, DM, GA Burton. 2012. Biofilm response to contaminated sediment and indirect effects on grazers varies among stream ecosystems. *North American Meeting of SETAC*, Long Beach, CA.

Harrison A, D Costello, GA Burton, L Podzikowski, R Mendonça, C Hammerschmidt. 2012. Experiments Measuring Bioavailability in Oxic and Spiked Sediments. Annu Meeting N Amer Soc Environ Toxicol Chem. Long Beach CA. Nov.

Fetters K, D Costello, A Harrison, M Eggleston, GA Burton. 2012. Sediment Resuspension Affects Metal Bioavailability. Annu Meeting N Amer Soc Environ Toxicol Chem. Long Beach CA. Nov.

Xie M, Fetters K, Jarrett B, Packman A, Cadoux C, Yuen J, El-Natour M, Gaillard J_F, Burton GA. 2012. Coupling between pore water fluxes, structural heterogeneity, and biogeochemical processes controls contaminant mobility, bioavailability, and toxicity in sediments. Annu Meet American Geophysical Union. San Francisco. December

Burton GA, G Rosen, DB Chadwick, C Stransky, H Bailey, MS Greenberg, J Radford. 2013. Improved In Situ Approach for Assessing Sediment Ecological Risk, Remediation Effectiveness and Stormwater Impacts. 7th Intern Conf Remediation of Contaminated Sediments. Dallas, TX. February.

Costello, DM, GA Burton, CR Hammerschmidt, and AM Harrison. 2013. Metal SQGs and the ecosystem concept: lessons from field and mesocosm experiments. *Seventh International Conference on Remediation of Contaminated Sediments*, Dallas.

Harrison AM, DM Costello, and GA Burton. Ecologically realistic approaches to sediment toxicology research on redox sensitive compounds. *Annual Meeting of the Society for Freshwater Science*, Jacksonville, FL, 2013.

Podzikowski, LY*, DM Costello, and GA Burton. Responses of lotic macroinvertebrate assemblages to biologically available copper in spiked sediments in Michigan's upper and lower peninsulas. *Annual Meeting of the Society for Freshwater Science*, Jacksonville, FL, 2013.

Mendonça, RM*, AM Harrison, DM Costello, GA Burton, CR Hammerschmidt, and LY Podzikowski*. 2013 Dynamic copper biogeochemistry and toxicity in sediments. *Annual Meeting of the Society for Freshwater Science*, Jacksonville, FL, 2013.

Kinsman-Costello, L, Greg Dick, Nathan Sheldon, Allen Burton, Tim Gallagher, Dan Marcus, Mike Balke, Michael Snider and Bopi Biddanda. 2013. Salty Fresh Water: Submerged sinkholes receiving high-conductance, low-oxygen groundwater inputs harbor unique microbial communities and function. *Annual Meeting of the Society for Freshwater Science*, Jacksonville, FL, 2013.

Costello, DM, AM Harrison, RM Mendonca*, D Marsh*, CR Hammerschmidt, and GA Burton. 2013. Aging spiked sediments in a flow-through artificial stream – changes in sediment Cu toxicity and speciation. *Annual Meeting of SETAC Europe*, Glasgow, Scotland, 2013.

Costello, DM, AM Harrison, GA Burton, CR Hammerschmidt, and RM Mendonca*. 2013. Experiments measuring copper bioavailability in oxic and spiked sediments. *ECHA Topical Scientific Workshop: Risk Assessment for the Sediment Compartment*, Helsinki, Finland, 2013.

Burton, GA, DM Costello, CR Hammerschmidt, EC Rogevich Garman, and CE Schlegel. 2013 Nickel phase partitioning, flux, and toxicity in field deployed sediments. *ECHA Topical Scientific Workshop: Risk Assessment for the Sediment Compartment*, Helsinki, Finland, 2013.

Burton G Allen, Gunther Rosen, D Bart Chadwick, Chris Stransky, Howard Bailey, Marc S Greenberg, John Radford. 2013. Evaluation of a new tool for assessment of *in situ* biological exposure and effects, risk and remediation effectiveness in aquatic environments. 36th AMOP Technical Seminar on Environmental Contamination and Response. Halifax, Nova Scotia. June.

Burton, G Allen, Jr, Rosen G, Chadwick B, Costello D, Fetters K. 2013. Improving linkages between exposure and effects assessments of contaminated sediments in marine harbors. 7th International Conference on Marine Pollution and Ecotoxicology. Hong Kong. June.

Burton GA. 2013. Are sediment guidelines developed from laboratory spiking studies accurate? SETAC Australia Conference. Melbourne. September

Kinsman-Costello L, Dick G, Burton GA, Sheldon N. 2013. Will climate, invasives and toxicants imperil unique biodiversity in Great Lakes Sinkhole ecosystems? MCubed Symposium. University of Michigan. November.

Burton GA. 2013. Are contaminated sediments an important stressor? University of Saskatchewan. Toxicology Centre. November.

Burton GA 2013. Metal bioavailability, multiple stressors and environmental risk assessments: Resolving impairment complexities in human dominated waterways. 7th National Environmental Chemistry Conference. Guiyang, China. September. (invited)

Burton GA 2013. Understanding the ecological risk of anthropogenic chemicals in the context of natural stressors. School of Environment. Nanjing University. September (invited).

Burton GA. 2013. Perspectives on effective management of urban water quality. Biannual Meeting Australasia Chapter of SETAC. Melbourne. October. (invited)

Burton GA. 2013. Natural and anthropogenic stressors in aquatic ecosystems. University of Roskilde. Roskilde Denmark. September. (invited)

Costello, DM, AM Harrison, DL Marsh, RM Mendonca, GA Burton, CR Hammerschmidt. 2013. Dynamic speciation and toxicity during aging of Cu-spiked sediments in a flow-through mesocosm. Ann Meeting SETAC. Nashville TN Nov.

Kapo, K, C. Holmes, S. Dyer, L. Posthuma, D. de Zwart, M. J. Whelan, R. Williams, V. Keller, A. Young, S. Marshall, G.A. Burton, and J. Murray Bligh. 2013. Leveraging Existing Data Resources with Spatial Eco-epidemiology as a Screening-Level Approach in Ecological Risk Assessment: Case Studies in the U.S. and the U.K. Ann Meet SETAC. Nashville TN

Driscoll SBK, Menzie CA, Ghosh U, Reible DD, Burton GA, Gschwend P. Sediment Bioavailability Initiative: Development of Standard Methods for the Use of Passive Samplers in Management of Contaminated Sediment. Ann Meeting SETAC. Nashville TN Nov.

Stransky C, Rosen GH, Chadwick B, Guerrero JM, Colvin MA, Tait K, Burton GA. Chesapeake Bay is our Laboratory -In Situ Sediment Toxicity and Bioaccumulation Assessment at Marine Corps Base Quantico, Virginia. Ann Meeting SETAC. Nashville TN Nov.

Fetters K, Costello D, Hammerschmidt C, Burton GA. 2013. Toxicological effects of short-term resuspension of metal-contaminated freshwater and marine sediments. Annu Meet Soc Environ Toxicol Chem. Nashville TN. November.

Harrison AM, DM Costello, GA Burton, CR Hammerschmidt. 2014. Metal Release and Toxicity of Aged versus Freshly Amended Sediments. Joint Aquatic Sciences Meeting. Portland, OR. May.

Costello DM, AM Harrison, GA Burton, CR Hammerschmidt. 2014. Variation in sediment redox potential influences metal biogeochemistry and toxicity. Joint Aquatic Sciences Meeting. Portland, OR. May.

Kinsman-Costello Lauren, Cody Sheik, Greg Dick, Nathan Sheldon, Allen Burton, Tim Gallagher, Dan Marcus, Bopi Biddanda. 2014 Dynamic biogeochemistry of microbial mat and sediment communities in submerged groundwater seeps of Lake Huron. Joint Aquatic Sciences Meeting. Portland OR. May.

Burton GA and Costello D. 2014. AVS based bioavailability models are inadequate for predicting risk in oxic sediments. No. 157. Annu Meet SETAC Europe. Basel Switzerland.

Posthuma, L, Burton GA et al. 2014. Solution-focused landscape-level eco(toxico)logical assessment and management. No. 522. Annu Meet SETAC Europe. Basel Switzerland.

Burton GA. 2014. Improving spatial and temporal characterizations of metal bioavailability in sediments and overlying waters. SETAC Asia Pacific Biannual Conference. Adelaide Australia.

Costello, D., GA Burton et al. Dynamic speciation and toxicity of metal-spiked sediments during aging in a flow-through mesocosm. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Daley, J., GA Burton et al. Multidisciplinary assessment of the ecological and environmental impacts of microplastics in the Laurentian Great Lakes. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Nedrich, S. GA Burton et al. Simulating resuspension and bioturbation in aquatic sediments: Differentiating the effects on metal bioavailability. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Burton GA, J Daley et al. Assessing the ecological impacts of trace organics using a weight of evidence framework. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Daley, J., GA Burton et al. An in-situ toxicity identification evaluation method to assess the risk of trace organic exposures in the context of co-occurring stressors. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Harrison, A., GA Burton et al. Improving metal sediment toxicity testing: methods for more environmentally relevant exposures. Abstracts. Annual SETAC North American Conference. Vancouver Canada. Nov 2014.

Burton GA, Jen Daley, Anna Harrison, Larissa Sano. 2015. Simulating Resuspension and Bioturbation in Aquatic Sediments: Differentiating the Effects on Metal Bioavailability. Battelle Conference on Remediation and Management of Contaminated Sediments. New Orleans. Jan 2015.

KJ Farley, KJ Rader, RF Carbonaro, GA Burton Release of Metals from Contaminated Sediments: Translation from Laboratory to Field-scale Assessments. Battelle Conference on Remediation and Management of Contaminated Sediments. New Orleans. Jan 2015.

Nedrich SM, Burton GA. 2016. Indirect effects of climate change on Zinc cycling in sediments: the role of changing water levels. Soc Env Toxicol Chem Annu Meeting. Orlando Nov 2016

Costello DM, Schlekat CE, Garman ER, Hammerschmidt CR. Burton GA. Sediment homogenization and aging alters the toxicity of metal-amended sediments. Soc Env Toxicol Chem Annu Meeting. Orlando Nov 2016

Reible DD, Rao B, Athanasiou D, Drygiannaki I, Rakowska M, Otto M, Streets B, Pitt R, Marianne C, Rosen G, Chadwick B, Burton GA. 2016. Evaluating Stormwater Impacts on Coastal Sediment Recontamination. Soc Env Toxicol Chem Annu Meeting. Orlando Nov 2016

Mendonca, R, Schlekat C, Garman E, Daley J, Hudson M, Burton GA, Costello D. The role of metal oxide minerals in nickel bioavailability in field-contaminated sediments. Soc Env Toxicol Chem Annu Meeting. Orlando Nov 2016

Hudson ML, Burton GA, Costello D, Daley JM. Ecotoxicology of Gold Nanomaterials: Effects on periphyton, *L. Stagnalis*, and *H. Azteca* in an aquatic food chain study. Soc Env Toxicol Chem Annu Meeting. Orlando Nov 2016

Nedrich SM, Brown SS, Burton GA. 2017. Assessing Environmental Risk of Metals to Benthic Organisms in Hydrologically Intern Conf Remediation and Mgmt of Contaminated Sediments. New Orleans. Feb 2017

Chadwick B, Moore D, Burton GA, Colvin M, Davidson B. Remedy and Recontamination Assessment Array: An Initial Pro Remediation and Mgmt of Contaminated Sediments. New Orleans Feb 2017.

Reible D, Rao B, Dmitri Athanasiou, Ilektra Drygiannaki, Magdalena Rakowska, Michelle Bejar, Colvin M, Rosen G, Chadwick B, Burton A. (Texas Impacts of Urban Stormwater Contaminants on Coastal Sediment Recontamination. Intern Conf Remediation and Mgmt of Contaminated Sediments. New Orleans Feb 2017

Abstracts: total since 1978 = 314

Invited Lectures (since 2008):

Assessing Aquatic Ecosystems: Issues and Approaches. Honor Society of Metropolitan Dayton. Wright State University. January 2008.

Assessing Environmental Risk in Aquatic Systems: Realistic and Efficient Approaches for Effective Decision Making. Jeddah Environmental Forum and Exhibition. Jeddah, Saudi Arabia. April 2008. (invited, but cancelled)

Sustaining Human Health and the Environment. Special Programs & Continuing Education. University of Dayton. June 2008.

Assessing Aquatic Ecosystem Impairment: Issues and Approaches. University of Gothenburg, Sweden. October 2008.

Assessing Aquatic Ecosystem Impairment: Issues and Approaches. Western Michigan University. October 2008.

Assessing Aquatic Ecosystem Impairment. Environment Canada. Burlington, Ontario. October 2008.

Mining in Michigan. Panelist for discussion. School of Natural Resources & Environment. Univ. of Michigan. Ann Arbor. November 2008.

Management of Contaminated Sediments: The Path to Risk-Based Remedial Action Decisions - Linking exposure with effects in sediment assessments. SERDP Annual Meeting. Washington DC. December 2008.

Assessing ecosystem quality. Michigan American Fisheries Society. Dundee MI. Mar 2009.

Assessing ecosystem quality: from small streams to lakes and harbors. Grand Valley State University, Annis Water Resources Institute. Muskegon, MI. Oct. 2009

Assessing ecosystem quality: from small streams to lakes and harbors. University of Melbourne. Melbourne, AU. Sept. 2009.

Linking sediment contamination with ecologically relevant impacts. Keynote address. Australasian Soc Ecotoxicology. University of Adelaide, Adelaide, AU. Sept 2009.

Predicting the fate and effects of resuspended metal contaminated sediments. SERDP Science Advisory Board. Arlington VA. Sept. 2009

Coupling between pore water fluxes, structural heterogeneity, and biogeochemical processes controls contaminant mobility, bioavailability, and toxicity in sediments. SERDP Science Advisory Board. Arlington VA. Oct. 2009.

Assessing ecosystem quality: from small streams to lakes and harbors. Dept of Civil and Environmental Engineering. University of Texas. Austin TX. Oct 2009

Great Lakes Water Quality and Resources. A Green Midwest, A Blue Midwest, 2nd annual Global Midwest Conference. Chicago, IL. November 2009.

Water quality issues in the Great Lakes. University of Michigan Alumni Chapter. Lansing, MI. October 2009.

Field research experiences. SNRE PhD Student seminar series. Feb. 2010.

Great Lakes and Water Resources. Panel speaker. Sustainability Teach-In. 40 Earth Day. University of Michigan. March 2010.

When are sediments important stressors of aquatic ecosystems? Putting assessment back into ecological risk assessments. Death Valley Environmental Assessment Summit. Ryan Camp, Death Valley. March 2010.

Assessing ecosystem quality: from small streams to lakes and harbors. University of Roskilde, Denmark. April 2010.

My love affair with mud, and other complex issues. SNRE. UM. May 2010.

Advances in Sediment Risk Assessment. Chemical stress and remediation in the aquatic environment. ERAC Edu seminar series. Kuopio, Finland. November 2010.

Water, water everywhere, so why all the fuss? OSHER Lifelong Learning Program. Ann Arbor MI. January 2011.

Assessing contaminated sediments: Improving the status quo. Department of Earth & Environmental Sciences. Univ. Michigan. Sept 2011.

Assessing ecological risk of contaminated sediments: Will the real stressor please stand up? Michigan State University Dept. of Fisheries and Wildlife. Oct 2011.

What are the threats to our waters (will the real stressor please stand up?) Ouachita Baptist University Bicentennial Lecture Series. Arkadelphia, AR. Nov 2011.

Why are we failing to manage water quality? University of Toledo Lake Erie Research Center. January 2012. Video: http://www.knowledgestream.org/kstream/index.asp?item_id=10937

Assessing impacts in aquatic ecosystems: Unknown unknowns and the relevance paradox. Michigan Society of Toxicology Annual Meeting. Central Michigan University. May 2012.

Blue Economy. The Craig Fahley show, WDET-FM (101.9) Detroit PBS. March 28. http://www.snre.umich.edu/highlights/2012-03-28/professor_burton_talks_about_the_'blue_economy'

Plenary. Assessing water quality: Holistic approaches that reduce uncertainty. VI Encontro Nacional de Quimica Ambiental (VI ENQAmb), Londrina, Brazil. March 2012.

Improving assessments of invertebrate metal toxicity through realistic, multi-compartment, exposure scenarios. Aquatic Toxicity Symposium, Holden Village, WA. June, 2012.

Brazilian Opportunities in The Society of Environmental Toxicology & Chemistry and Publishing in Environmental Toxicology & Chemistry. XII Congresso Brasileiro de Exotoxicologia. Recife, Brazil. Sept. 2012.

Plenary. Making Ecosystem Reality Checks the Status Quo. XII Congresso Brasileiro de Exotoxicologia. Recife, Brazil. Sept. 2012.

Plastic in aquatic environments: From the Pacific Gyre Garbage Patch to the Great Lakes. Michigan Recycling Coalition. East Lansing, MI. April 2013.

Plenary. Natural and Anthropogenic Stressors in Aquatic Ecosystems. University of Roskilde. Denmark. September 2013.

Plenary. Metal Bioavailability, Multiple Stressors and Environmental Risk Assessments: Resolving Impairment Complexities in Human Dominated Waterways. 7th China National Conference on Environmental Chemistry. Guiyang. September 2013.

Understanding the Ecological Risk of Anthropogenic Chemicals in the Context of Natural Stressors. Nanjing University, China. October 2013.

Perspectives on Effective Management of Urban Water Quality. SETAC Australia Conference. Melbourne. October 2013.

Perspectives on effective management of urban water quality. Biannual Meeting Australasia Chapter of SETAC. Melbourne. October, 2013 (invited)

To Tell the Truth: Will the Real Stressor Please Stand Up? Midwest SETAC Annual Meeting. Loyola University. March 2014.

Careers in Environmental Science. School of Environment. Nanjing University (invited). April 2014

Integrating Multiple Assessment Methods to Understand Ecosystem-Stressor Relationships. School of Environment. Nanjing University (invited). April 2014

Options for Assessing Ecosystem Quality in Human-Dominated Watersheds: Issues and Examples. College of Environmental Science & Engineering. Peking University (invited). April 2014

Careers in Environmental Science. College of Environmental Science & Engineering. Peking University (invited). April 2014

Linking Environmental Exposures to Adverse Effects: Weight-of-Evidence Based Approaches Reduce Uncertainty in Human Health Assessments. School of Public Health. Peking University. (invited) April 2014.

Asian carp, Algal Blooms, Fracking, UP Mining, Micro-plastics and Pharmaceuticals: Will the real stressor please stand up? University of Michigan Conservation Ecology Seminar Series. December 2014.

Environmental Epidemiology: Perspectives on Microplastics in Aquatic Ecosystems. Personal Care Products Council. Newark NJ. Oct. 2014

Background Issues in Superfund Cleanups. Panel Participant. Sediment Management Workgroup Symposium. Washington DC. December 2014.

Careers in Environmental Science. School of Environment. Nanjing University (invited). April 2015

Invited Seminar: Will the real stressor please stand up? Calvin College. Feb. 2015.

Invited lecture: Which aquatic stressors really matter? Nanjing University, China April 2015

Keynote: Which aquatic stressors really matter? Pragmatic diagnostic approaches and considerations. National Conference on Ecotoxicology. Xiamen, China April 2015

Invited Seminar: Metal bioavailability (thus toxicity) changes through time in sediments. Nanjing University, China April 2015.

Invited Seminar: What's messing up our streams, rivers, lakes and harbors? How do we make them better? Central Michigan University Field Station. Beaver Island, MI July 2015

Invited lecture: Fate and transport of environmental contaminants. Nanjing University, China. October 2015

Invited lecture: Sediment characterizations and sampling for environmental assessments. Nanjing University, China. October 2015

Invited lecture: In situ cage and mesocosm testing in aquatic systems. Nanjing University, China. October 2015

Invited lecture: Using weight-of-evidence approaches to assess aquatic ecosystems. Nanjing University, China. October 2015

Invited seminar: Improving assessments of metal bioavailability in sediments in the context of multiple stressors. Nanjing University, October 2015

Invited lecture: Sediment quality guidelines and BEAST. Nanjing University, China. October 2015

Invited lecture: Sediment quality guidelines for metals: The past, present and future. Nanjing University, China October 2015

Invited lecture: How to Publish Scientific Papers. Nanjing University, China December 2015

Invited lecture: Environmental epidemiology: Perspectives on the role of microplastics in aquatic ecosystems. Nanjing University, China December 2015

Invited seminar: Diagnosing dominant stressors in aquatic ecosystems. Dalian University, China. December 2015.

Invited seminar: Which aquatic stressors really matter? Pragmatic diagnostic approaches and considerations. Expert Panel, Research Institute for Fragrance Materials, Inc. (RIFM). Miami, FL. January 2016.

Keynote: Human dominated aquatic ecosystems have a plethora of physical, chemical and biological stressors: Where do metal and synthetic organic chemicals rank amongst them. 8th Intern Conf Marine Pollution and Ecotoxicology. Hong Kong. June 2016

Keynote: Breaking from Tradition: Establishing more realistic sediment quality guidelines. Intern Conf Deriving Environ Quality Standards for the Protection of Aquatic Ecosystems. Hong Kong. June 2016.

Invited Lectures since 1984 = 200