

Speaker Bios



Tuesday, Oct. 19 – Rapid methods workshop

Julie Kinzelman

Dr. Julie Kinzelman is a research scientist and the Director of the Health Department Laboratory for the City of Racine, WI. She is a Visiting Fellow at the University of Surrey where she earned her Ph.D. in public health microbiology and holds academic appointments at UW-Milwaukee (Affiliate Scientist/School of Freshwater Scientists, Clinical Assistant Professor/College of Health Sciences) and UW-Parkside (Associate Lecturer and Research Associate/Geosciences Department). Dr. Kinzelman is currently on the Board of Directors for the Great Lakes Beach Association. Her current research interests focus on applied science solutions to improve surface water quality; recently working with the US EPA to validate real time molecular methods for monitoring surface waters and developing a standardized beach sanitary survey tool for the Great Lakes. Ongoing projects include implementation of sanitary surveys to identify pollution sources at Great Lakes beaches, evaluating real-time QPCR as a method for monitoring water quality from a variety of aqueous environments, chemical and microbial assessments on urban river segments, predictive modeling, and assessing the impacts of algal blooms on recreational water quality and human health. She has authored a number of book chapters and publications appearing in journals such as Journal of Great Lakes Research, Journal of Environmental Quality, Water Research, Applied & Environmental Microbiology, Journal of Water and Health, Aquatic Ecosystem Health and Management, Lake & Reservoir Management, Current: Journal of Marine Education, and Canadian Journal of Microbiology.

Rebecca Bushon

Rebecca Bushon is a hydrologist with the U.S. Geological Survey, Water Resources Discipline in Columbus, Ohio. She received her B.S. in Biology from the Ohio State University in 1999 and has been with the Ohio Water Science Center for the past 13 years. She is the laboratory manager for the Ohio Water Microbiology Laboratory, which provides services to other USGS offices and their cooperators throughout the US. Her main research interests are rapid detection methods, including IMS/ATP and qPCR for fecal-indicator organisms and pathogens. She has been involved recently in projects testing rapid methods at beaches for recreational purposes, at drinking water facilities for homeland security applications, and at wastewater facilities for treatment efficiency evaluations.

Christopher Kephart

Christopher Kephart is a hydrologist with the U.S. Geological Survey, Water Resources Discipline in Columbus, Ohio. He received his B.S. in microbiology from the Ohio State University in 2000 and his M.S. in environmental science from OSU in 2009. He has been with the Ohio Water Science Center for the past 10 years. His main research interests include rapid detection methods such as qPCR for monitoring fecal-indicators and pathogens and the impacts of large-scale livestock farming practices on water quality. He has been involved recently in studies testing rapid methods in recreational waters and at drinking water facilities for homeland security applications, and in microbial source-tracking studies in rural Ohio locations.

Tuesday, Oct. 19 – Virtual Beach modeling workshop

David Rockwell

In January 2009, David Rockwell was selected to be the Beach Water Quality Forecasting Coordinator for NOAA's Center of Excellence Great Lakes and Human Health. In 2010, he was invited by The International Joint Commission's Beaches and Recreational Water Quality Work Group to participate in the Expert Consultation in Erie, PA on October 21-22 as co-chair of the Beach Management session. David is an internationally recognized expert in Beach Monitoring Programs since 1998. A publication in this field is in the proceedings of the 2006 Marine Waste Water Discharge International Conference 2006 in Antalya Turkey titled *Bacteria, beaches and swimmable waters: has bacterial contamination increased?* by David C. Rockwell, Holiday Wirick, and Charles Kovatch. David along with Steven Chapra and Alice Dove received the International Association for Great Lakes Research prestigious 2010 Chandler-Misener Award their paper on *Great Lakes Chloride Trends: Long-term Mass Balance and Loading Analysis*, J. Great Lakes Res. 35(2):272-284. 2009.

Adam Mednick

Adam Mednick is a research scientist with the Wisconsin Department of Natural Resources, where his work includes applied research, outreach, and technical assistance on environmental modeling and decision-support tools geared toward local resource managers, public health officials, and land use planners. Adam's primary focus is on beach water-quality nowcasting, with additional work towards the development of new approaches for estimating the impacts of climate- and land use change on stormwater runoff. Adam has been involved with the Great Lakes Beach Association since 2008 and led the training workshop on EPA's "Virtual Beach" (water-quality modeling tool) at the 2009 Great Lakes Beach Conference. Adam works closely with local health departments, as well as researchers at EPA, USGS, and several universities, on the continued enhancement and dissemination of Virtual Beach and other tools for local beach managers.

Mike Cyterski

Dr. Cyterski received an undergraduate degree in Biology from Harvard University in 1992, a Master's Degree in Fisheries Science from the University of Minnesota in 1995, a Master's Degree in Statistics from Virginia Tech in 1998, and a PhD in Fisheries Science from Virginia Tech in 1999. After graduation from Virginia Tech, he accepted a post-doctoral research position at the USEPA in Athens, Georgia, simulating watershed hydrology using the HSPF model. After three years, he was hired into a permanent position as a research ecologist and has worked on developing empirical models for predicting fish assemblages in streams based on reach and watershed characteristics. For the past two years, Dr. Cyterski has also been heavily involved in the development of statistical models for predicting beach pathogen concentrations based on local environmental factors. He has overseen the development of Virtual Beach 2.0, a software program developed to facilitate multiple linear regression modeling of beach pathogen data. Dr. Cyterski has been awarded by USEPA two bronze metals and three Scientific and Technologic Achievement Awards since 2005. Dr. Cyterski has a wide publication record in many areas.

Wednesday, Oct. 20 – Conference sessions

Denise Hawkins

Denise Hawkins is Chief of EPA's Fish, Shellfish, Beach and Outreach Branch. She is responsible for implementing the BEACH Act as well as EPA's fish advisory program and fish tissue studies. Ms. Hawkins has more than 30 years of experience in both the public and private sectors working on environmental program implementation. Her expertise includes state programs, permitting, outreach and communications, guidance and training development, and program evaluation. She has worked on a broad range of issues including municipal and hazardous waste, drinking water and, most recently, indoor air quality. Ms. Hawkins has a B.A. in Urban Studies from Brown University and an M.P.A. from the George Washington University.

Lisa Christ

Lisa Christ has been an Environmental Protection Specialist with the U.S. Environmental Protection Agency in Washington DC since 1999. For the past two years, she has been the Team Leader for the Office of Science and Technology (OST) Recreational Water Quality Criteria Development team. Lisa coordinates with the team to ensure studies and other activities remain on schedule, oversee compliance with Consent Decree and Settlement Agreement obligations, and serves as liaison with EPA's Office of Research and Development. Previously Lisa was a team leader in the drinking water program where she coordinated with team members on training activities, development of guidance documents, and other tools to assist states, drinking water systems, and technical assistance providers with effective implementation of Safe Drinking Water Act (SDWA) regulations and programs. Lisa received a B.S. in Environmental Science from Texas A&M University-Corpus Christi.

Charles Kovatch

Mr. Kovatch is a Team Leader / IT Liaison in the Office of Water at the U.S. Environmental Protection Agency in Washington DC. He works with Clean Water Act 303(d) and 305(b) programs, the ATTAINS data system for assessed and impaired waters, and the STORET data system to store water quality data. Prior to this position, Mr. Kovatch helped build the EPA BEACH Program under the BEACH Act to establish guidance, award grants, collect beach data, and support research. He also contributed to the Great Lakes Regional Collaboration and the development of Beach Sanitary Surveys. Mr. Kovatch has experience working in drinking water treatment and holds a M.S. in Environmental Toxicology from the University of South Carolina and a B.S. in Environmental Science from Indiana University of Pennsylvania. When he's not solving water quality issues, he can be found studying for an MBA at the University of Maryland or riding the back roads of Maryland, Virginia, and West Virginia on his motorcycle.

Tim Fletcher

Tim Fletcher graduated from the University of Guelph with a BSc in Marine Biology. He has worked at the Ontario Ministry of Environment for over 20 years, in the areas of water quality, pesticides management and standards development. Currently he is the Supervisor - Water Quality Standards Unit, and is guiding the development of new water standards for the protection of aquatic life, recreation and drinking water. Tim represents Ontario on the Canadian Council of Ministers of the Environment Water Quality Working Group which develops Canadian Environmental Quality Guidelines and on the Recreational Water Quality Guidelines

Working Group. Tim represents the Ministry of Environment on the IJC Beaches Working Group and on the Council of Great Lakes Research Managers.

Jeff Ridal

Jeff works with the St. Lawrence River Institute of Environmental Sciences, a non-government research organization located on the banks of the St. Lawrence River in Cornwall, Ontario. His research predominantly involves water quality issues, including recreational water quality, fate and transport of contaminants, and food web bioaccumulation. Jeff's formal training is in chemistry (BSc. Trent, M.Sc. Ottawa) and oceanography (Ph.D. Dalhousie). Post-doctoral positions at Canada's National Water Research Institute and the University of Montreal brought him into the freshwater field. Jeff joined the River Institute in 1995 as its first Research Scientist. He became its Executive Director in 2004 and he has been integral in the growth of the River Institute's reputation for innovative research, education and community outreach. Jeff is an adjunct professor with Queen's University and the University of Ottawa. He was named to the IJC's Science Advisor Board in 2008, and serves on the Beach and Recreational Water Quality and Chemicals of Emerging Concern working groups.

Holly Wirick

Holly Wirick is a water quality standards coordinator at U.S. EPA's Region 5 office in Chicago, Illinois. She has served as the Region's Beach Program Coordinator since the inception of EPA's BEACH Program in 1997. Holly was a charter member of the Great Lakes Beach Association and served on the board until 2008.

David Schwab

Dr. Schwab is a physical oceanographer at the NOAA Great Lakes Environmental Research Laboratory and Director of the NOAA Center of Excellence for Great Lakes and Human Health. His research has centered on geophysical fluid dynamics problems in the Great Lakes and other shallow enclosed seas. This has included theoretical, numerical, and observational investigations of circulation, thermal structure, seiches, storm surges, wind waves, and air-sea interaction. Current research involves numerical modeling of three-dimensional lake-scale circulation, thermal structure, and sediment dynamics.

Christine Manninen

Ms. Manninen directs the Great Lakes Information Network (GLIN: www.great-lakes.net), which includes the GLBA website and Great Lakes BeachCast. As a senior level manager at the Great Lakes Commission in Ann Arbor, Christine guides development of GLIN and all related web applications, as well as writing, design, publishing and marketing of Commission publications and reports. She also serves as coordinator for the Great Lakes Observing System (GLOS: www.glos.us), overseeing development of all GLOS data management and communications programming. Christine holds a BS in Biological Sciences from Michigan Technological University and an MA in Environmental Journalism from Michigan State University.

Eric Wiegert

Eric Wiegert currently serves as the BEACH Act Grant Program Quality Assurance Officer for the New York State Department of Health. The Department is responsible for statewide oversight of beach water quality regulatory programs and is a national leader in drowning and injury prevention programs for recreational water venues. Eric has been involved in the regulation of recreational water and preventive environmental health programs for

over 16 years in several locations in the United States at both the state local and levels. He holds a Bachelor's Degree in Biology from Arizona State University and is currently working towards a Master's Degree in Public Health at the State University of New York. He recently coordinated New York State's multi-agency effort to submit proposals for Great Lakes Restoration Initiative beach water quality related grants.

Shannon Briggs

Dr. Shannon Briggs is a Senior Toxicologist and manages the beach monitoring program for the Water Resources Division of the Michigan Department of Natural Resources and Environment. She is co-founder of the Great Lakes Beach Association (GLBA) that began in 2001. She served as President of the GLBA from 2005 to 2007 and currently serves as an advisory member. She was a contributor to the Coastal Health Chapter of the Great Lakes Regional Collaboration Strategy that provides the framework to restore and protect the Great Lakes. She also served on the Pre-Pilot Beach Sanitary Survey Workgroup led by the United States Environmental Protection Agency in 2006. She is currently a member of the Beach Health Steering Committee for the United States Geological Survey. Dr. Briggs has a Ph.D. in Pharmacology and Toxicology from Michigan State University.

Chris Bradley

Chris Bradley obtained his BS in Engineering from the Colorado School of Mines in 2003, and has been working as a stormwater solutions provider for the past 7 years. Chris grew up in Lake Havasu City, Arizona, a small town developed around water. This inspired his interest in the environment and protecting our world's most precious resource. His passion led him to AbTech Industries, where for the past year and a half he has been working with their innovative Smart Sponge technology. Chris's career has allowed him to work alongside many great people in communities around the country to increase public health safety and protect water resources.

Greg Kleinheinz

Greg Kleinheinz has a B.S. in Biology and Chemistry from Northern Michigan University, a Ph.D. in Environmental Microbiology from Michigan Tech University and has over 14 years of experience working on water and wastewater issues. Dr. Kleinheinz has a background in microbiology, analytical chemistry, and environmental engineering. Dr. Kleinheinz, and the UW Oshkosh beach group, currently conducts beach monitoring and/or research in 13 Wisconsin counties, with a summer research group of over 20 students working at over 100 beaches. Their research interests include investigations into novel sampling techniques, sanitary survey development, rainfall effects on *E.coli*, pathogens and viruses in recreational water, and a variety of molecular source-tracking methods to aid in fecal input mitigation and beach management practices.

Corey Schwab

Corey Schwab graduated from the University of Findlay with a bachelors of science in Environmental and Hazardous Materials Management. He has been in public health for 8 years. Corey began his career in environmental health at the Delaware General Health District as a sanitarian in the food and public safety division. He later became a sanitarian in the residential services division where he specialized in household sewage treatment systems and private water systems. Corey currently works for the Ohio Department of Health, where for the past three years he has been a sanitarian program specialist in the recreation division. He has been involved in the Ohio beach monitoring program since the 2009 season.

Rachel McNinch

Rachel McNinch is a research assistant at the Center for Water Sciences at Michigan State University. She received her Masters degree in Fisheries and Wildlife from MSU in 2007. She is involved with multiple projects at CWS including her work presented here today regarding the use of GIS to look at land use patterns in conjunction with the state of Michigan's *E. coli* database in terms of beach water quality. She is also involved with the Center for Advancing Microbial Risk Assessment (CAMRA) at MSU and internationally with the International Water Associations sub-group on Health-Related Water Microbiology. Her research interests include recreational water quality, human health, and the social aspect of connecting scientists, policy makers and stakeholders through interactive workshops.

Kristopher Barnswell

Kristopher received his Ph.D. in Biology (Ecology-track) from the University of Toledo in May 2010. His research focused on designing a landfill evapotranspiration cover for an inactive landfill in northwest Ohio to minimize percolation and facilitate habitat restoration. He participated in National Science Foundation GK-12 Program from May 2009 to May 2010 and during that time mentored high school students with science projects. Currently, he is a Post Doctoral Associate at the University of Toledo and his research is centered on monitoring water quality of agricultural drainage ditches and designing constructed wetlands to reduce bacterial and nutrient contamination.

Allan Crowe

Dr. Allan Crowe is a Research Hydrogeologist with Environment Canada's National Water Research Institute, in Burlington, Ontario. His research interests focus on the role of groundwater in the degradation of beaches and nearshore water quality. Allan Crowe is an adjunct professor at the University of Western Ontario and McMaster University.

Jennifer Haley

Jennifer Haley is a Microbiologist/Educator with the St. Lawrence River Institute of Environmental Sciences. She holds a B.Sc. Honours in Microbiology and Immunology from the University of Western Ontario, and a M.Sc. degree in Microbiology and Immunology from the University of Ottawa. Jennifer research with the St. Lawrence River Institute includes a Beach Health research project to determine the sources, management practices, and site characteristics that are related to *E. coli* levels at four candidate beaches along the St. Lawrence River.

Jamie Cross

Jamie has been with the Alliance for the Great Lakes since 1999 helping to engage volunteers and improve data collection and volunteer monitoring. She was charged with modifying the Adopt-a-Beach™ forms to align with the EPA Sanitary Survey, and has also worked to develop an online data entry and storage system for Adopt-a-Beach™ data. Under Jamie's leadership the Adopt-a-Beach™ program grew from an annual one day Coastal Cleanup event in MI and IL to a year-round volunteer Adopt-a-Beach™ program. Now active in OH, MI, IL, IN & WI, Adopt-a-Beach™ engages 9,000 volunteers and cleans up and monitors 245 sites.

Thursday, Oct. 21 – Conference sessions

Joanna Pope

Dr. Joanna Pope is an Environmental Engineer specializing in environmental epidemiology, and molecular methods for evaluating water quality. For her PhD at Drexel University, Joanna worked with the Philadelphia Water Department applying source tracking methods to urban streams in mixed-use watersheds. Joanna is currently a post-doctoral fellow at Michigan State University and is continuing her research in the field of recreational water quality.

Asli Aslan

Dr. Asli Aslan Yilmaz is a post doctoral fellow Dr. Joan Rose's laboratory at Michigan State University. She received her Ph.D. (2008) from Istanbul University, Institute of Marine Sciences and Management. Her research interests are mainly focused on the application of molecular methods for monitoring microbial pollution in global waters. She is currently the coordinator of IWA Health Related Microbiology Group's new initiative, International Collaboration for Sewage (IC Sewage). She is experienced in long-term recreational water quality monitoring at coastal and estuarine ecosystems and development of alternative pollution indicators for microbial source tracking.

Sheridan Haack

Sheridan Haack received her PhD in Environmental Microbiology from Michigan State University, and her MS in Environmental Engineering Sciences from the University of Florida. She has worked for the US Geological Survey at the Michigan Water Science Center for the past 15 years. Sheridan is a founding board member and past president of the Great Lakes Beach Association.

Brian Badgley

Brian Badgley received his B.S. in zoology from the University of Georgia, in Athens, Georgia. Afterward, he taught environmental education at the Jekyll Island 4-H Center in Jekyll Island, Georgia. He later obtained his M.S. degree in Marine, Estuarine, and Environmental Science from the University of Maryland in College Park, Maryland. His thesis focused on the uptake of dissolved nitrate as a source of nitrogen for symbiotic corals, which he researched at the Bermuda Biological Station in St. George's, Bermuda. During his final year at the University of Maryland, Brian was awarded a one-year Knauss Marine Policy Fellowship from NOAA's Sea Grant Program, which he spent with the National Estuarine Research Reserve System. Following this, Brian worked as the Coastal Training Program Coordinator at the Rookery Bay National Estuarine Reserve in Naples, Florida. In 2004, he returned to complete his Ph.D. program in Biology at the University of South Florida, where his dissertation focused on understanding the ecology and impacts of fecal indicator bacteria that persist in the environment. He is currently at the Univ. of Minnesota as a post-doc associate with the BioTechnology Institute.

Tasha Santiago Rodriguez

Tasha Santiago Rodríguez is a Ph.D. candidate carrying out research in the Environmental Microbiology Laboratory at the University of Puerto Rico under the supervision of Dr. Gary Toranzos. Her research interest is the characterization of those phages that infect *Enterococcus* species. She is interested specifically in those that infect *E. faecalis* in order to propose them as viral indicators of human fecal pollution. From these studies, two papers have been published in 2010.