

Ohio River Basin Consortium  
For Research and Education

http://www.orbcre.org  
Dr. Tiao J. Chang, Executive Director  
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Athens, OH 45701

Preliminary Program for Symposium 2012 (July 18-20, 2012)  
hosted by Ohio University, Athens, Ohio  
Walter Hall, Ohio University (Rotunda: Bldg 156 on campus map)

July 18, 2012 (Wednesday)  
9:00 AM Booth setups for exhibitors, sponsors, and posters at Rotunda Room, Walter Hall

Environmental Workshop for Teachers (sponsored by Ohio Environmental Education Fund)  
8:30 AM - 9:00 AM Breakfast  
9:00 AM - 10:00 AM Introduction and pretest  
10:00 AM - 11:00 AM Kelly Johnson: BooKS on-boat water sampling and analysis  
11:00 AM - 11:30 AM Miriam Kannan: Algae issues in the Ohio River Basin- past, present and future  
11:30 Am – 12:00 PM Mike Miller: Status of the Ohio River 2012  
12:00 PM - 1:00 PM Travel to the Boat of Knowledge from Ohio University to Mariette and lunch box on bus  
1:15 PM - 3:00 PM Water sampling and hands-on analysis  
3:00 PM - 4:00 PM Eric Fitch: Ohio River Museum  
4:10 PM - 5:00 PM Travel back to Ohio University and reflection

July 18, 2012 (Wednesday)  
12:00 PM - 5:00 PM Boat of Knowledge field trip  
6:00 PM - 9:00 PM ORBCRE Board of Trustees annual dinner & meeting

July 19, 2012 (Thursday)  
Registration and Breakfast  
7:00 AM - 8:00 AM Posters and Exhibitions

Welcoming Remarks  
8:00 AM - 8:15 AM  
T. Chang and D. McAvoy, Co-chairs for the Symposium  
Welcome by Gayle Mitchell, Chair, Civil Engineering Department, Ohio University  
Welcome by Chuck Duritsa, Chair, ORBCRE

Symposium Session I  
8:15 AM - 10:00 AM Plenary presentations  
Moderators: Jim Morris, United States Geological Survey and Deb McAvoy, Ohio University  
Scott Davies, Maritime Administration, USDOT: Marine highway in the Ohio River Basin  
Yiqing Guan, Hohai University, Najing, China: The Three Gorges Dam
and Reservoir – Energy, navigation and water resources conservancy
Craig Butler, Ohio Governor Office: Ohio’s energy development policy and sustainable environment

**Morning Break**
10:00 AM - 10:30 AM
Posters & Exhibitions

**Symposium Session II**
10:30 AM - 12:00 PM
Maritime impacts on inland waterways
Moderators: Marty Hettel, Manager Captive Service, American Electric Power and Jim Jarrell, Amherst Madison
Chuck Knowles, Multimodal Transportation and Infrastructure Consortium: Inland waterway transportation research, education and workforce development and technology transfer
Marty Hettel, AEP: Maritime transportation in the Ohio River and its tributaries
Steven Foster, US Army Corps of Engineers-Huntington: Monitoring for potential impacts of maintenance dredging on populations of Uniondale mussels below the RC Byrd Locks and Dams
Katherine Allan and Kelly Johnson; Ohio University: Spatial and temporal variation in seston quality for filter-feeders along the Ohio River and two tributaries

**Lunch Break**
12:00 PM - 1:30 PM
Ms. Deborah Lee, Chief, Water Management Division, U.S. Corps of Engineers, Cincinnati, Ohio: Current Corps initiatives in water resources in the Ohio River Basin.
Posters & Exhibitions

**Symposium Session III**
1:30 PM - 3:00 PM
Renewable and subsurface energy development
Moderators: Hal Walker, Director of Water Resources Center, The Ohio State University and Frank Simms, Manager of Hydropower, American Electric Power
Douglas Southgate, Professor, Co-Director of University's Subsurface Energy Resource Center, The Ohio State University: The Shale Revolution: Public Policy, Markets, and Technology
Ralph Haefner, USGS Ohio: Drilling for Natural Gas in the Marcellus and Utica Shales: Potential Impacts to Ohio's Water Resources
Maryam Ansari, John Lenhart and Paula Mouser, The Ohio State University: Development of synthetic fracturing fluid and multiplex pyrosequencing to detect hydraulic fracturing fluid releases in aquifer materials
Eric Fitch, Marietta College: How would a transition from coal to natural gas impact the natural, economic and infrastructural environments of the Ohio River Basin

**Afternoon Break**
3:00 PM - 3:30 PM
Posters & Exhibitions

**Symposium Session IV**
3:30 PM - 5:00 PM
Flood forecasting and water resources

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Moderators: Dick Bartz, United States Geological Survey and Jim Noel, Ohio River Forecast Center, NOAA

Thomas Adams, Sherry Chen, Raymond Davis, Joseph Heim, and Scott Young, NOAA River Forecast Center: The Ohio River community HEC-RAS model

Scott Jackson, USGS Ohio: Flood warning system for the City of Marietta

Dylan Ames and Kenneth LaSota, Robert Morris University: Soil conservation runoff curve number for the campus of Robert Morris University, Narrows Run Creek Watershed

Vincent Marchese, US Army Corps of Engineers: Environmental Operation of Flood Control Lakes

ORBCRE Banquet
6:30 PM - 9:00 PM

Mr. John Kessler, Deputy Chief, Ohio Department of Natural Resources, Columbus, Ohio: EPRI and the development of the Water Quality Trading Program in the Ohio River Basin-Three Ohio Counties Planning Pilot Projects.

July 20, 2012 (Friday)
Registration and Breakfast
7:00 AM - 8:00 AM

Symposium Session V
8:00 AM - 10:00 AM

Environmental education and watershed
Moderators: Constance White, Ohio Department Nature Resources and Teresa Franklin, Ohio University

Joe Bonnell, Ohio State University Extension Office: Watershed Management and Education

Ann Ohlinger and John Bentz, Southern Local and Ohio University: Teaching spatial relationships and GPS technology in a high school classroom with an emphasis on environmental sciences

Thomas Koontz and Pranietha Mudliar; Ohio State University: Social learning and implementation in collaborative watershed groups; a view from 3 Ohio partnerships

Mariam Kannan and Steve Kerlin, Northern Kentucky University, and Heather Mayfield, Foundation of Ohio River Education: Merging river field studies with mobile and online technologies – A new initiative of Ohio River STEM Institute

Amy Braverman and Haynal, Alexander High School and Ohio University: Bringing the BooKS experience to school


Morning Break
10:00 AM - 10:30 AM

Symposium Session VI
10:30 AM - 12:00 PM

Water resources and environment
Moderators: John Hoopingarner, Executive Director, Muskingum
Watershed Conservancy District and Vincent Marchese, Physical Scientist, Army Corps of Engineers, Huntington District

Michael Brooker, Gil Bohrer, William Mitsch and Paula Mouser; The Ohio State University: Factors influencing methane emission potential from wetland sediments

Kelly Johnson, Elizabeth Clowes, and Peter Thompson; Ohio University: Drift responses of Appalachian stream macroinvertebrates to episodic acid pulses

Brian Reeder and Samuel Fryman; Morehead State University: Properties of ridge-top vernal ponds in Daniel Boone National Forest

Katy Lustofin; Marietta College: Phoretic mites associated with Bonbus species in Washington County, Ohio

Lunch and Feedback
12:00 PM - 1:30 PM
Post-test for the Teacher Workshop (Announcements and Adjournment)

Poster Session

Moderators: Steve Fondriest, President, Fondriest Environmental Inc. and Drew Bender, Manager, Cardn JFNew Inc.

1. Brett Blevins and T. Chang; Ohio University: An erosion model for the Muskingum Watershed using GIS
2. Andy Lucas, Ohio University: Studying the sediment delivery ratios of reservoirs in series
3. Andrew Copley and T. Chang, Ohio University: An initial investigation effects of Muskingum and Kanawha Rivers on the Ohio River’s water quality
4. Rebecca Bennett and T. Chang, Ohio University: The sediment transport and capacity in the channelized portion of Hocking River
5. Josh Minnich and T. Chang: Effects of slope and slope length on watershed erosion and reservoir sedimentation
6. Jackie Haynal, Ohio University: Upstream Refuge Environments
7. Bentz and Wiseman; Ohio University; Use of a virtual boat of knowledge to stimulate student interest and increase awareness of pollution impacts on the environment
8. Jim Noel, NOAA: Prediction Modeling
9. Michael Flinn, Murray State University:
10. Nihiser and Johnson; Ohio University: Aluminum Tolerance in Crane Fly Larvae