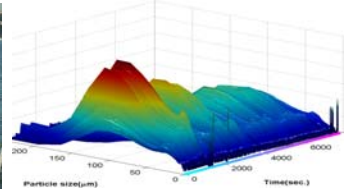




# Environmental Consortium of Colleges & Universities

8<sup>th</sup> Annual Student Summit



## From Environmental Data to Decisions: The Expanding Role of Technology



**Friday, April 5, 2013**

Beacon Institute for Rivers and Estuaries  
of Clarkson University  
Center for Environmental Innovation and Education  
Denning's Point State Park  
Beacon, NY

Co-Sponsors



On April 5, 2013, the Environmental Consortium of Colleges & Universities' held its 8<sup>th</sup> Annual Student Summit at Beacon Institute for Rivers and Estuaries' Center for Environmental Innovation and Education ([www.bire.org](http://www.bire.org)).

Nearly 60 students representing 17 different institutions gathered to hear speakers and panelists who shared their expertise with students in discussions on the expanding role of technology for communicating environmental insights to the public and policymakers. Presenters were experts from Beacon Institute, Cary Institute of Ecosystem Studies, Clearwater, NASA, Pace University, Clarkson University and *The New York Times*.

Following presentations, students mingled with presenters and other working professionals for further inquiry into potential future environmental careers. The event concluded with optional field trips.



Following welcome remarks by Consortium Director, Michelle Land, and Timothy F. Sugrue President and Chief Executive Officer of the Beacon Institute, John Cronin, Senior Fellow at Pace University and Clarkson University delivered a keynote.



Andrew Revkin, Dot Earth blogger for the *New York Times* and Senior Fellow at Pace University moderated the panel discussion after sharing this post from his blog: [dotearth.blogs.nytimes.com/2010/03/25/new-ways-to-gauge-the-finite-atmosphere](http://dotearth.blogs.nytimes.com/2010/03/25/new-ways-to-gauge-the-finite-atmosphere)



Panel, "Assessing Environmental Change and Building Societal Understanding." From left to right, Sage Lichtenwalner (Rutgers); Timothy Hall (NASA); Mohammad Shahidul Islam (Clarkson University); Andrew Revkin (Pace University)



Panelists and additional professionals from Cary Institute and Clearwater joined students at their tables for further discussion about the topic and their environmental careers.



Shahidul Islam, River and Estuary Observatory Network (REON) Project Manager discussed the project and the integrated network of sensors, robotics, mobile monitoring and computational technology that is being deployed across the watershed.



Dr. Lucille Lewis Johnson, professor of anthropology at Vassar College, returning with a group from a guided tour and discussion of Denning's Point's rich and historic landscape.



View of the Center for Environmental Innovation and Education with REON "B4" platform.

## ACKNOWLEDGEMENTS

The Environmental Consortium acknowledges the generous support from our host, The Beacon Institute for Rivers and Estuaries of Clarkson University with special thanks to Mike Heintzman, Public Outreach Coordinator and Michael Walsh, Educational Program Director.

## ABOUT THE ENVIRONMENTAL CONSORTIUM

The mission of the Environmental Consortium of Colleges & Universities is *to harness higher education's intellectual and physical resources to advance regional, ecosystem-based environmental research, teaching, and learning with a special emphasis on the greater Hudson-Mohawk River watershed.*

The Environmental Consortium was established in 2004 to advance our understanding of the cultural, social, political, economic and natural factors affecting the region. By promoting collaboration among its members, the Consortium works to provide ecosystem-based curricular and co-curricular programming aimed at improving the health of the regional ecosystem.

Spearheaded and hosted by Pace University, the Consortium's headquarters is situated within the Pace Academy for Applied Environmental Studies in Pleasantville, New York. Among Pace Academy's stated goals is to externally apply the university's strengths to local and global environmental problems. As a testament to its commitment to interdisciplinary pedagogy, scholarship and service, the Academy provides essential administrative support that grounds the Consortium's programs.

[www.environmentalconsortium.org](http://www.environmentalconsortium.org)

## AGENDA

- 11:00 a.m. Student Registration & Buffet Lunch**
- 12:00 p.m. Welcome**  
**Michelle D. Land**  
Director  
*Pace University Academy for Applied Environmental Studies*  
*Environmental Consortium of Colleges & Universities*
- Timothy F. Sugrue**  
President and Chief Executive Officer  
Beacon Institute for Rivers and Estuaries  
Dean, School of Business  
*Clarkson University*
- 12:15 p.m. “It’s 12 O’Clock, Do You Know Where Your Water Has Been?”**  
**John Cronin**  
Beacon Institute Fellow  
*Clarkson University*  
Senior Fellow for Environmental Affairs  
*Pace University Academy for Applied Environmental Studies*
- 12:45 p.m. Panel - Assessing Environmental Change and Building Societal Understanding**
- Andrew C. Revkin** [Moderator]  
Dot Earth Blogger  
*The New York Times*  
Senior Fellow for Environmental Understanding  
*Pace University Academy for Applied Environmental Studies*
- “Real-Time Information”**  
**Mohammad Shahidul Islam**  
REON Project Manager  
Beacon Institute for Rivers and Estuaries  
*Clarkson University*
- “Analysis and Knowledge”**  
**Timothy M. Hall**  
Senior Scientist  
Goddard Institute for Space Studies  
*National Aeronautics and Space Administration (NASA)*
- “Communication, Visualization, and Decision-Making”**  
**Sage Lichtenwalner**  
Research Programmer  
Institute of Marine and Coastal Sciences  
*Rutgers, The State University of New Jersey*

## AGENDA *(continued)*

1:45 p.m.

### **Networking Dessert**

*Panelists and other experts will be available at each table to continue dialogue with students, and talk more about their field and line of work. Attendees are encouraged to visit at least two different tables.*

1

### **Policymaking & Lobbying**

**John Cronin**

*Pace University and Clarkson University*

2

### **Modeling Climate Data**

**Timothy M. Hall**

*NASA*

3

### **Engineering, Computing & Technology**

**Mohammad Shahidul Islam**

*Beacon Institute of Clarkson University*

4

### **Communication & Journalism**

**Andrew Revkin**

*The New York Times and Pace University*

5

### **Visualizing Data for Educational Use**

**Sage Lichtenwalner**

*Rutgers*

6

### **Environmental Justice**

**Karla Raimundi**

*Environmental Justice Associate  
Clearwater*

7

### **Ecological Monitoring & the Community Connection**

**Victoria Kelly**

*Environmental Monitoring Program Manager  
Cary Institute of Ecosystem Studies*

2:20 p.m.

### **Closing Remarks**

2:30 p.m.

### **Adjourn & Optional Field Trips**



## BIOGRAPHIES

**John Cronin** | *Clarkson University and Pace University*



John Cronin is an internationally renowned American environmentalist best known for his groundbreaking work as a pollution fighter on New York's Hudson River. *Time Magazine* recognized him as a "Hero for the Planet" for his citizen enforcement work that led to cases against more than 100 environmental lawbreakers and inspired the creation of more than 200 Water Keepers in six nations. In a profile of his Riverkeeper work, *People Magazine* called him "equal parts detective, scientist and public advocate." He coauthored *The Riverkeepers*, with Robert F. Kennedy, Jr., recognized as a leading handbook on environmental activism, and has contributed numerous op eds on environmental policy to *The New York Times*. He later became an aide to Republican Congressman Hamilton Fish, Jr. and then to Democratic State Assemblyman (later Congressman) Maurice Hinchey, for whom he also served on a special investigative team on Love Canal. He is the founding director and CEO of Beacon Institute for Rivers and Estuaries, and a founder of the Environmental Consortium of Colleges & Universities. He currently serves as Senior Fellow for Environmental Affairs at Pace University, and Beacon Institute Fellow at Clarkson University. John's many honors include an honorary Juris Doctor from Pace Law School, a Jefferson Gold Award, founded as the "Nobel Prize for Public Service" by Jacqueline Kennedy Onassis, and most recently as one of eight "Leaders of 2013" by *Westchester Magazine*. He has been the subject of three books, and dozens of profiles in all media. The *Wall Street Journal* praised John as "a unique presence on America's major waterways."

**Timothy M. Hall** | *National Aeronautics and Space Administration*



Dr. Timothy Hall is a Senior Scientist at NASA Goddard Institute for Space Studies, and Adjunct Professor at Columbia University in the Department of Applied Physics and Applied Mathematics. His research includes tracer transport in the ocean and atmosphere, carbon cycle, climate variability and impacts. Dr. Hall received his B.A. in Physics from Wesleyan University and earned his Ph.D. in Physics from Cornell University.

## BIOGRAPHIES

### **Shahidul Islam** | *Clarkson University*



Mohammad "Shahidul" Islam currently serves as Research Assistant professor at Clarkson University. He is involved in the implementation of REON Network since 2009 when he joined Beacon Institute for Rivers and Estuaries as a REON project manager. He designed and implemented the Coastal Margin Observation and Assessment System for Corpus Christi Bay, TX for his Ph.D. dissertation work at Texas A&M University. Dr. Shahidul holds a B.Sc. in civil engineering from Bangladesh University of Engineering and Technology, and his M.S. from the University of Tokyo. He has broad experience in real-time monitoring system design, sensor development, numerical modeling and cyber infrastructure development for environmental applications.

### **Victoria Kelly** | *Cary Institute of Ecosystem Studies*



Vicky Kelly manages the Cary Institute's Environmental Monitoring Program, which includes monitoring climate as well as air, precipitation and stream water quality. Data from the program have been used to understand the dynamics of road salt on a watershed scale as well as climate change on precipitation chemistry. Her recent publications include "Road Salt, Moving Toward the Solution" and "The State of the Environment, Dutchess County." She earned her B.S. and M.A. from San Francisco State University

### **Sage Lichtenwalner** | *Rutgers, State University of New Jersey*



Sage Lichtenwalner is a Research Programmer at the Rutgers University Institute of Marine & Coastal Sciences. Sage works with both the Coastal Ocean Observation Lab and the Education & Outreach Group, transitioning research data from coastal observatories into operational products for use by K-16 students, teachers and the general public. Using a variety of data management, visualization and interactive web technologies, Sage has been involved with the design and development of dozens of web applications over the past 10 years, and is currently the Lead Developer for the Ocean Observatories Initiative's new educational web portal, which aims to increase the usage and usability of ocean data in undergraduate courses. Sage received his Bachelors degree in Physics from Rutgers College, and actively follows developments in the fields of physical oceanography, data visualization, online education and science communication, which he tweets to @visualocean.

## BIOGRAPHIES

### **Karla Raimundi** | *Clearwater*

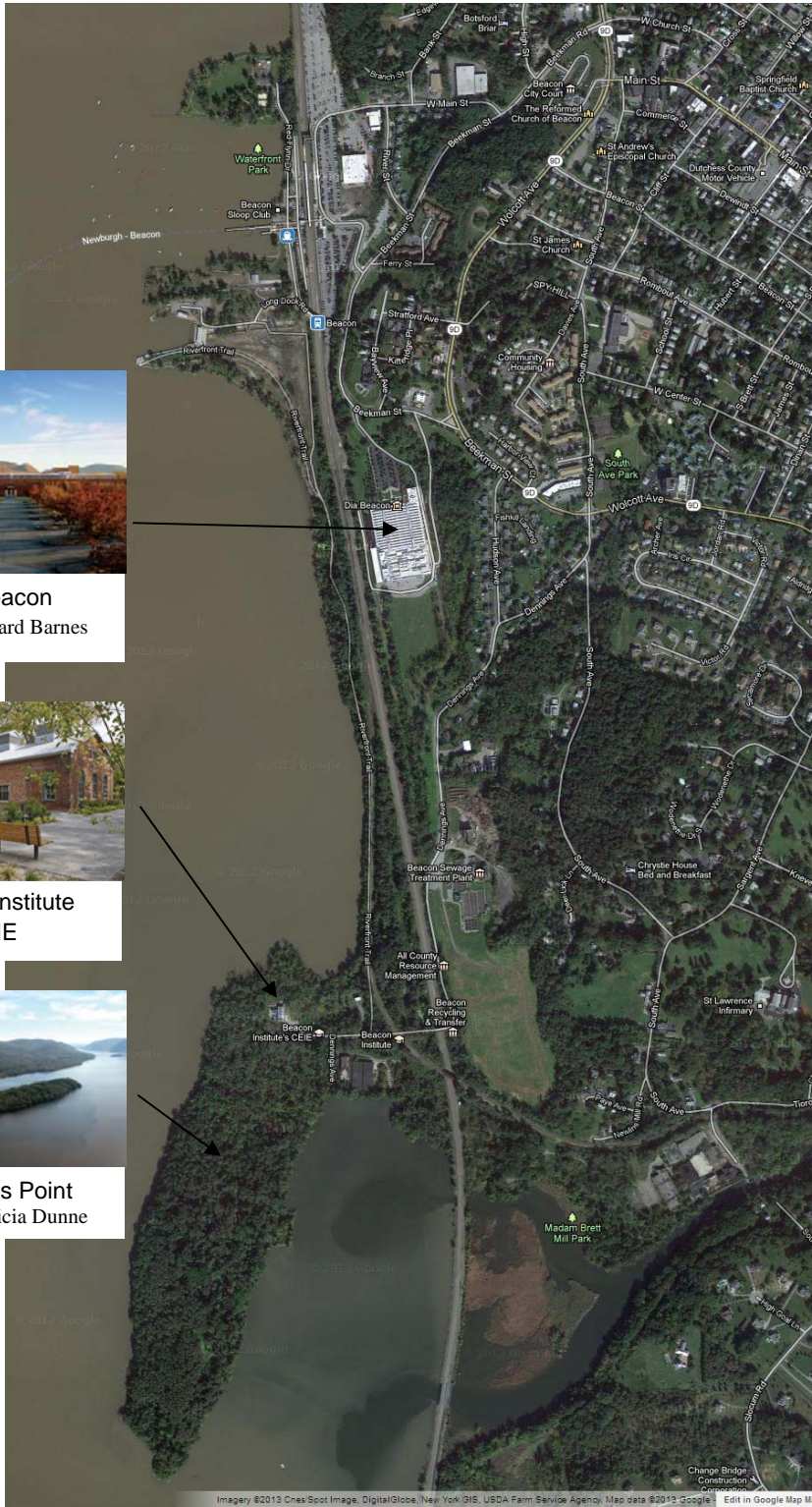


Karla was born and raised in Puerto Rico where she completed a Juris Doctor at the State University. In 2006, already a licensed attorney in the Commonwealth of Puerto Rico, Karla and her husband moved to New York where she decided to go back to school to pursue a career in the environmental field. As a postgraduate student of the prestigious Environmental Law LLM program at Pace University Law School she fell in love with everything environmental. It is after having completed two masters in law at Pace that she realized that she wanted to work helping people change the way in which they relate to their environment and inspire them to take upon themselves the leadership necessary to bring about the environmental change we so much desire and are in need of. It is this commitment that so enthusiastically brings her to Clearwater. As Clearwater's Environmental Justice Associate and Environmental Action Legal Director, Karla works with low income and minorities in inner cities to empower and encourage their involvement in environmental matters, and manages Clearwater's participation in the Indian Point relicensing case. Karla has always loved the outdoors. In Puerto Rico it was the beaches, biking in El Morro and occasional hikes in El Yunque Rainforest. In the states it is all about skiing during winter (if there is snow in May within driving distance you will see her there too) and hiking, rollerblading, biking and thinking about skiing during the rest of the year.

### **Andrew Revkin** | *The New York Times* and *Pace University*



Andrew Revkin is Senior Fellow for Environmental Understanding at the Pace Academy for Applied Environmental Studies. He is also the creator and writer of the Dot Earth blog for the Opinion section of *The New York Times*, where he covered the environment as a staff writer from 1995 through 2009. At Pace University, Revkin teaches courses on blogging, environmental-science communication and documentary video with a focus on sustainable development. As a pioneer in multimedia communication, Revkin speaks to varied audiences around the world about the power of the Web to foster progress on a finite planet. A prize-winning journalist, online communicator and author, he has spent 30 years covering subjects ranging from the assault on the Amazon to the Asian tsunami, from the troubled relationship of science and politics to climate change at the North Pole. Revkin has a biology degree from Brown and a Master's degree in journalism from Columbia. He has taught at Columbia's Graduate School of Journalism and the Bard College Center for Environmental Policy.



**Dia: Beacon**  
 Photo ©Richard Barnes



**Beacon Institute  
 CEIE**



**Denning's Point**  
 Photo ©Patricia Dunne

## FIELD TRIPS

### River and Estuary Observatory Network (REON)



Join Mohammad Shahidul Islam, Ph.D., REON Project Manager, to learn about the environmental sensing capabilities of a REON advanced monitoring station up close and personal. This robotic platform, along with others of similar and different design, allow for continuous monitoring of complex physical, chemical and

biological parameters at points in the Hudson and Mohawk and St. Lawrence Rivers. REON is an integrated network of sensors, robotics, mobile monitoring and computational technology that is being deployed across the watershed.

### Archeology and History Walk Around Denning's Point



Join Dr. Lucille Lewis Johnson, professor of anthropology at Vassar College, for a guided tour and discussion of Denning's Point's rich and historic landscape.

### Guided Museum Tour at Dia: Beacon



In May 2003, Dia Art Foundation opened Dia:Beacon, Riggio Galleries, as a museum to house its renowned permanent collection of major works of art from the 1960s to the present. Located on the Hudson River in Beacon, NY, Dia:Beacon occupies a nearly 300,000-square-foot historic printing factory.







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