

# WATER NEWS



Winter 2010 – Spring 2011  
Volume 11 Issue 2

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Nutrient management to protect and restore the quality of our ground and surface waters has long been a priority research area for the **DWRC**. Please join us at this international conference featuring speakers from China, the Netherlands, Canada, Ireland, and the U.S., who will discuss recent advances in nutrient management science, technology and policy.

Abstracts (poster sessions only) and registration forms are due on **Aug. 1, 2011** (registration after this date will have higher fees).

For more information, and to register and submit abstracts, visit the Symposium website: <http://ag.udel.edu/4thNMSymposium>.

## GLOBAL ISSUES IN NUTRIENT MANAGEMENT SCIENCE, TECHNOLOGY AND POLICY 4<sup>th</sup> International Symposium

August 21-24, 2011

University of Delaware

*An international symposium addressing global issues and trends in nutrient management. The symposium focuses on how agricultural management practices, technological advances, and global or regional policies are affecting both nutrient use efficiency in the food chain and the quality of our environment in different regions of the world.*

### *Symposium Key Themes:*

Worldwide challenges in the management of nutrients to produce a safe and secure food supply while protecting the quality of the global environment

Focus on current issues and trends in nutrient management in China, the European Union, and the United States

Advances in nutrient management science and technology – adapting recent innovations to meet global needs

Developing national and international policies for nutrient management in today's rapidly changing global economy

**IMPORTANT DATES:** Abstract submission EXTENDED: August 1, 2011 Registration deadline: August 1, 2011

For more information and to register contact:

Dr. Tom Sims, College of Agriculture & Natural Resources, University of Delaware (jtsims@udel.edu)  
or visit the symposium website: [ag.udel.edu/4thNMSymposium](http://ag.udel.edu/4thNMSymposium)

Co-Sponsored by



College of Agriculture  
& Natural Resources

China Agricultural University





### DWRC Annual Luncheon and Poster Session – April 22, 2011

At the University of Delaware's Trabant University Center, 2010-11 **DWRC** interns, graduate fellows, advisors, and **DWRC** Advisory Panel members enjoyed lunch and learned about research projects and interests. After lunch, the Advisory Panel held its annual meeting. The interns went on to discuss posters summarizing their projects as part of the larger UD 2011 Undergraduate Scholars poster session.



The posters of 2010-11 **DWRC** interns (from left to right below): Kristin Berry, Aidan Galasso, and Courtney Simmons (All April 22, 2011 photos by M. Pautler)

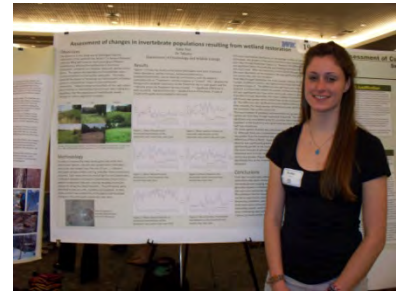


### DWRC Annual Poster Session – April 22, 2011



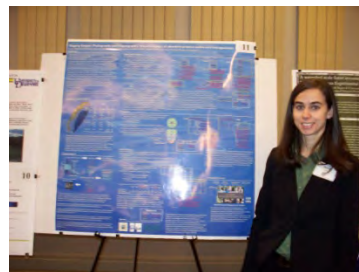
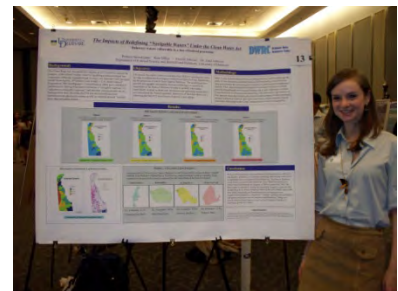
“Through this internship, I have learned a lot of hydrology field research techniques and skills, including surveying, collecting and processing water samples, and data analysis. But most importantly, I got to experience being part of a research team in which everyone is willing to help each other out and most projects get accomplished through a group effort. I have gained so much knowledge and experience from everyone I worked with on this project that will definitely be useful in my future research and career goals.” – *Michelle Lepori-Bui*

“For my internship, I assessed the changes in invertebrate populations resulting from a wetland restoration. I gained valuable experience with collecting and indentifying arthropods and I also learned to identify various native and invasive species of plants. This internship provided me with lots of new knowledge, skills, and hands-on experience that I could not have gotten inside a classroom.” – *Katie Yost*

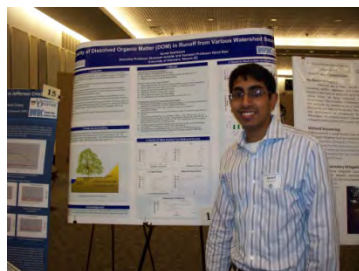


“Throughout the course of my internship I was involved in numerous interesting activities and I learned a number of things that I probably would not have learned elsewhere. There were a lot of difficult situations and times where improvisation was necessary and frustration was inevitable, but it was one of the most rewarding experiences I have participated in to date and I am extremely pleased that I got the opportunity to take part in a program such as this one.” – *Kevin Myers*

“This internship with the Delaware Water Resources Center has taught me the importance of pursuing the issues that are important to me, and of using technology to help interpret and support policy.” – *Kate Miller*



2010-11 **DWRC** interns  
(clockwise from top left):  
*Stephanie Hahn, Mara Hyatt,  
Hannah Starke, and Suneil  
Seetharam*

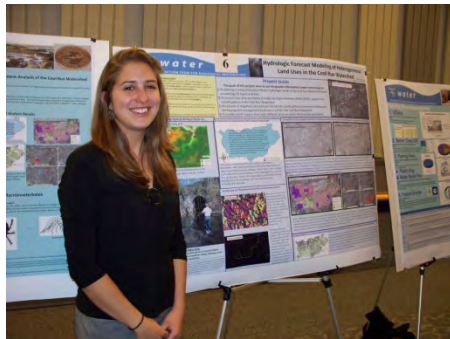




## DWRC Annual Poster Session – April 22, 2011

Reporting on the UD WATER project are the 2010-11 interns.

Intern **Melanie Allen** worked on “Assessing the Biodiversity of Aquatic Macroinvertebrates Residing in the Cool Run Watershed” with Dr. Judith Hough-Goldstein of the UD’s Department of Entomology and Wildlife Ecology.



Intern **Melissa Luxemberg** worked on “Hydrologic Forecast Modeling of Heterogeneous Land Uses in the Cool Run Watershed” with Dr. John Mackenzie of the UD’s Department of Food and Resource Economics.

Interns **Rina Binder-Macleod**, **Dakota Laidman**, and **Kimberly Teoli** worked on “Watershed Plan for Cool Run: Funding and Education” with Mr. Gerald Kauffman of the UD’s Institute for Public Administration Water Resources Agency.



The UD WATER project (*Watershed Action Team for Ecological Restoration*) formed in early 2008 as a University of Delaware-wide initiative with the long-term goal of minimizing the environmental impacts of stormwater runoff from the campus. UD WATER brings together faculty, staff, and students from many departments and disciplines across campus to work on creative and innovative stormwater management techniques that will reduce the quantity and increase the quality of storm runoff from the campus, thus protecting downstream waters, such as the White Clay Creek Wild and Scenic River. UD WATER team members include faculty and staff from the **DWRC**, the UD Water Resources Agency, the Delaware Geological Survey, the Departments of Bioresources Engineering, Civil and Environmental Engineering, Entomology and Wildlife Ecology, Food and Resource Economics, and Plant and Soil Sciences, and stormwater management experts from UD and the City of Newark. UD WATER has to-date funded 11 undergraduate interns to work with UD faculty and staff to develop a watershed management plan for the UD campus. For more information, please visit the website: <http://www.udel.edu/water/>.

### INTRODUCING OUR 2011-12 SPRING INTERNS

**Intern: Rebecca Aiken**

**Advisor: Dr. Jack Puleo**

**UD Department of Civil and Environmental Engineering**

Spatio-Temporal Hydrodynamic Variability in a Small Tidal Creek: DNERR St. Jones Reserve

**Intern: Amy Cannon**

**Advisor: Dr. Gulnihal Ozbay**

**Delaware State University Department of Agriculture and Natural Resources**

Oyster Gardening in Delaware Inland Bays: Filtration as a Means to Remove Excess Nitrogen from Local Wastewater Treatment Plant Discharges

**Intern: Stephen Gonski**

**Advisor: Mr. A. Scott Andres**

**Delaware Geological Survey**

Characterization of Submarine Groundwater Discharge Sites in a Coastal Lagoon

**Intern: Chelsea Halley**

**Advisor: Mr. Gerald Kauffman**

**UD Water Resources Agency**

White Clay Creek Wild and Scenic Shad Restoration Project

**Intern: John Paul Harris**

**Advisor: Dr. Anastasia Chirnside**

**UD Department of Bioresources Engineering**

Predation of Bacteria by the White Rot Fungi, *Pleurotus ostreatus*

**Intern: Carrie Scheick**

**Advisor: Dr. Delphis Levia**

**UD Department of Geography**

Is Atmospheric Deposition and Washoff of Aluminum in Stemflow a Significant Source of Aluminum to Forest Soils?

**Intern: Nicholas Spalt**

**Advisor: Mr. A. Scott Andres**

**Delaware Geological Survey**

Hydraulic Properties of the Columbia Aquifer

**Intern: Kimberly Teoli**

**Advisor: Dr. James Pizzuto**

**UD Department of Geological Sciences**

Sediment Transport through Historic Mill Dams of the Christina River Basin

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**DWRC** Partner Passages ~~

**DEADLINE NEARS:** From Matt Larsen, USGS Associate Director, Climate and Land Use Change

The White House Council on Environmental Quality (CEQ) released the draft National Action Plan on Jun. 2, with a request for comments by Jul. 15. The plan and a press release are available via <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>. Comments can be sent to the website directly. CEQ will post the comments on the website within several days after they are received.



Learn about a stormwater biofiltration system recently installed on the UD campus, near Townsend Hall via <http://www.udel.edu/udaily/2011/may/canr-stormwater-051711.html>. This system can be used for teaching, research, or outreach programs on stormwater management, water quality, etc. If interested, please contact Dr. Tom Sims ([jtsims@udel.edu](mailto:jtsims@udel.edu)).

A former **DWRC** Graduate Fellow was honored this spring. *From a May 5, 2011 press release:* Governor Jack Markell celebrated the efforts of the 2011 recipients of the Delaware Award for Excellence and Commitment in State Service. One was Jennifer (Jennings) Volk, Delaware Department of Natural Resources and Environmental Control, Water Resources, whose implementation of President Barack Obama's Executive Order and Environmental Protection Agency requirements led to the successful establishment of Delaware's Chesapeake Bay Watershed plan. She addressed and resolved issues that affect every Delawarean through the proper coordination of agriculture, stormwater, wastewater, land use, comprehensive plans, restorations, information technology and communications.

UD Department of Bioresources Engineering faculty member James Glancey, along with other members of the Artesian Water Resources Management Partnership, received the Water Resources Association's 2011 Government Award in May 2011. The core project honored is the first in the state of Delaware to use treated wastewater to grow crops on private farms. Robert F. Molzahn, President of WRA, said "The Partnership's Program for wastewater management and disposal is an excellent example of how government organizations can work in concert with private companies and individuals to achieve a mutually beneficial outcome."

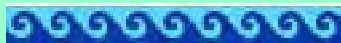


## DWRC Notices and Calendar

### UPCOMING MEETINGS

Delaware Section of the American Water Resources Association (AWRA)  
& the Delaware Student Section of the AWRA

Visit <http://www.deawra.org/> or contact [de.awra@gmail.com](mailto:de.awra@gmail.com) for information and updates



Jul. 17-22, 2011 – GLOBE Annual Partner Meeting. The meeting, "Expanding International Perspectives about Climate," will be held in Washington, DC. Visit <http://globe.gov/events/2011-annual-meeting>.

Oct. 16-19, 2011 – ASA-CSSA-SSSA International Annual Meetings in conjunction with the Canadian Society of Soil Science. The meeting, "Fundamental for Life: Soil, Crop, & Environmental Sciences," will be held in San Antonio, TX. Visit <https://www.acsmeetings.org/>.



### Ag Day - April 2011

UD graduate student Camilie Jones helps a young visitor (perhaps a future **DWRC** intern?) examine aquatic macroinvertebrates collected in UD's Cool Run Watershed.  
*(Photo by M. Pautler)*



# Delaware Water Resources Center Advisory Panel

## The Delaware Water Resources Center

The Delaware Water Resources Center (DWRC), established in 1965, is part of a network of 54 Water Resources Research Institutes throughout the nation. The DWRC receives funding through Section 104 of the Water Resources Research Act of 1984. The US Geological Survey administers the provisions of the Act and provides oversight of the nation's Water Resources Centers. The primary goals of the DWRC are: to support research that will provide solutions to Delaware's priority water problems, to promote the training and education of future water scientists, engineers, and policymakers, and to disseminate research results to water managers and the public. For more information, visit our website:

<http://ag.udel.edu/dwrc/>

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