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A&WMA

Phoebe C. Robb, Chair

APERG Winners for 2006 - 2007

The Air Pollution Education and Research Grant (APERG) program awarded a total of \$75,000 in scholarships to deserving doctoral and post-doctoral scientists conducting research in the Mid-Atlantic States Section (MASS) region. Each of the three scholarship awards was valued at \$25,000 with some universities, such as the University of Delaware, offering tuition remission as part of the school's matching award for APERG scholars. This year saw the first two second year awardees, Richard Lucas and Byunghyun Han, also be distinguished as *Raymond Manganelli Scholars*, which is an honor that is bestowed upon any APERG scholar who successfully competes for a second year of funding. A summary of the awardees and a brief bio are presented below.

Byunghyun Han

Project Title:

Intelligent Bioreactor Management Information System (IBM-IS) for Mitigation of Green House Gas Emission and Carbon Sequestration

Academic Institution:

University of Delaware

Mr. Han is currently a doctoral candidate at the University of Delaware in the Civil and Environmental Engineering program. This is his second year of support from the APERG program and as a result has the honor of being a *Raymond Manganelli Scholar*. Before coming to the United States to pursue a PhD degree, he worked on the design and development of bioreactor landfill systems at the Hyundai Mobis Research & Development Center in South Korea.

The ultimate purpose of Mr. Han's reseazrch is to assist in the development and demonstration of a new and revolutionary approach to managing bioreactor landfills – the **Intelligent Bioreactor Management Information System (IBM-IS)**. The IBM-IS is a program that manages a

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The Chair's Corner

Phoebe C. Robb



Greetings. The Section has been very busy this year. We amended our bylaws to align our fiscal year with that of the Association. This amendment also allowed us to conduct electronic balloting for our Board of Directors in April. We have also changed our newsletter from the traditional hard copy newsletter you have become familiar with to today's new electronic format. It is our belief that this new format will allow us to reach more

environmental professionals as well as reduce our production costs. On the program side, in April we held a very successful technical conference in New Brunswick, New Jersey co-sponsored by Johnson and Johnson. The conference was attended by over 100 environmental professionals. APERG and the Delaware Valley Chapter again held their joint awards ceremony at the Villanova University Conference Center in April. This is a terrific venue and with A&WMA President Peter Hess as our Keynote Speaker, a great time was had by all.

With the change in our bylaws, the Section has another election for officers and board members coming up in December. With this election, our alignment with Headquarters will be complete. This year we propose to continue our electronic balloting, but also hold a general meeting to allow members the opportunity to attend a technical presentation, cast their vote for officers and board members, and socialize with other members in pleasant surroundings. Please mark your calendars for November 29th to come out to the Bethlehem Brew Pub in Bethlehem PA and cast your vote and hear a presentation on Global Warming.

Our Program Committee is working on additional technical programs and social events for the remainder of the calendar year and through the winter. If you have any topics you would like to hear more about, or venues to suggest for either a technical meeting or a social event, please contact our Program Committee Chair, Brian Long at brian.long@baronenv.com.

Delaware Valley Chapter Gets Off To A Sweet Start

Life is sweet in the Delaware Valley as local Air & Waste Management Association Chapter members kicked off the fall season with ice cream and goodies at the DVC Chapter's first social networking event of the year. The ice cream social took place on September 7th at Zwahlen's Ice Cream & Chocolate Co. in Audubon, PA. The event provided local environmental professionals the opportunity to meet new and old A&WMA members and a chance to more fully participate in the Air & Waste Management Association. Members took time to exchange ideas about air, waste, and other environmental issues and learn about upcoming Delaware Valley Chapter events, committees, and resources. A good time was had by all participating and the Delaware Valley Chapter looks forward to hosting more events throughout the year.



New Members Appointed to the Northern and Central New Jersey Chapter

2006 Golf Outing



Join the NCNJ Chapter for one last round of golf on November 13, 2006 at the Eagle Ridge Gold Club in Lakewood, NJ. The event will benefit the Chapter's scholarship program for undergraduate students in the environmental-related fields. Join us!

For more information and other events, visit our the NCNJ Chapter Web page at http://www.mass-awma.net/NCNJ/current_events.html.

The Northern and Central New Jersey (NCNJ) Chapter of the Mid-Atlantic States Section of the Air & Waste Management Association recently appointed a new slate of Board members, as follows:

- ◆ James Blando, *Chairman*
- ◆ Scott Heath, *Vice-Chairman*
- ◆ Mark Hoffman, *Secretary*
- ◆ Richard A. Moore, Jr.,
Treasurer
- ◆ Leida Vasquez-Jorge and Rachel Hoffman, *Directors*
- ◆ Glenn Bodnar, *Scholarship Committee Chairman*
- ◆ Devin Demarco, *Student Liason*
- ◆ Brian B. Long, *Immediate Past Chairman*
- ◆ Kathleen Schmeelck, *Programming Committee Chairman*
- ◆ Andrew Capers, *Programming Committee Vice-Chairman*; and
- ◆ Jerry Marcus, *Chapter Advisor*.

The NCNJ chapter is busy planning meetings, plant tours, and conferences for the upcoming months. Details are being finalized so please visit: http://www.mass-awma.net/NCNJ/current_events.html for current information.

On October 4, 2006 Mr. Robert Adams of ENVIRON International Corporation presents his experience managing the Environmental, Health and Safety (EHS) programs during the clean-

up of the World Trade Center disaster. On October 27, 2006 the NCNJ Chapter will hold the annual fall regulatory seminar at the NJ Department of Environmental Protection's Public Hearing Room at 401 East State Street in Trenton, NJ. In mid-November the NCNJ Chapter will hold a joint meeting with the undergraduate Environmental Science and Engineering Club of Rutgers University.

There will be an exciting start to the upcoming year (2007). In January, there will be a meeting held at the EcoComplex in Bordentown, NJ. Tours of the facility will include the environmental friendly "green" building, landfills on site, turbines that power the site with landfill gas, extensive greenhouses, and much more. Please see their website for more details: <http://ecocomplex.rutgers.edu/>. In February 2007, we will hold our winter conference focusing on air quality and permitting.

Other events in the works include a meeting at the Union County Utilities Authority, a presentation by Dr. Paul Liroy, Director of the Exposure Science Division of the Environmental and Occupational Health Sciences Institute on the unique air quality situation during the attack on the World Trade Center, a joint meeting with the Stevens Institute students in the Hoboken, NJ area, and more. Stay tuned!

Central New York Chapter 2006-2007 Calendar of Events

The Central New York Chapter has the following events planned for 2006-2007:

September 21, 2006

Welcome Back BBQ — Onondaga Lake Park, Liverpool

October 25, 2006

Breakfast Meeting — Topic: Environmental Impacts & Response to Southern Tier (NY) Flooding

November 15, 2006

Dinner Meeting

December 13, 2006

Breakfast Meeting

January 17, 2007

Dinner Meeting

February 14, 2007

Breakfast Meeting

March 28, 2007

11th Annual Technical Conference

April 18, 2007

Breakfast Meeting

May 16, 2007

Plant Tour/Dinner Meeting

Our breakfast meetings are held at the Marx Hotel in Syracuse. Dinner meetings are held in various locations. Both feature a regulatory update and a technical presentation in addition to some yummy food and great opportunities to network. More detailed information is available on our website at www.awma-cny.org. Mark your calendar!



Eastern and Central New York Chapters

Keep up with upcoming events, visit their Web pages at:

Central NY
<http://www.awma-cny.org/>

Eastern NY
<http://www.mass-awma.net/ENY.html>

**Want to
become a
member?
No need to
stand in
line...**



... here is how:

Online: go to <http://www.mass-awma.net/join-renew.html>

or

By phone: call the **A&WMA Member Services Department** at 1-800-270-3444 for an application and complete membership



Update on Membership

Are you one of our current 721 members of the Air & Waste Management Association (A&WMA) and the Mid-Atlantic States Section (MASS)? You are, if you have paid your dues to A&WMA Headquarters in Pittsburgh, PA, which automatically includes Section dues! However, if you have only paid dues to one of the Section's Chapters, then **you are not a member of either of A&WMA or MASS-A&WMA** as defined and recognized by A&WMA but only of that Chapter of our Section! Please keep in mind that Chapters are sub-units of Sections and, in pecking order, Sections are the next higher and first units responsible directly to A&WMA.

While Chapter only membership provides you with the opportunity to interact with A&WMA professionals in that local Chapter, it does not offer approved certain rights and privileges enjoyed by certified members of A&WMA and the Section.

If you are a Chapter member only, please consider becoming an

official, full and active member of our Association. Various membership categories are available. The current MASS-A&WMA membership represents just over 13% of A&WMA's total membership. Our membership breakdown is summarized in the table below.

Help the Section to improve its status in A&WMA as a larger and stronger body of full members. Chapter officers, who according to Association Bylaws must be A&WMA members in order to serve as an officer, will be pleased to answer your questions about membership. You can also contact our Member Services Department. They can provide you with prompt and helpful assistance regarding becoming a member. A&WMA membership allows individuals to attain a higher level of professional participation and interaction capability in his or her chosen field. See sidebar for more information on to join our great organization.

Joseph J. Soporowski, Ed.D.,
*Chair, Membership Committee, and
Past President, A&WMA.*

A&WMA - MID-ATLANTIC STATES SECTION	
Membership Category	Number of Members
Individual	496
Emeritus	38
Fellow	2
Honorary Fellow	2
Honorary	1
Organization	86
Organizational Representatives	27
Students	54
Affiliates	15
TOTAL	721

News from the Treasurer



Welcome to *News from the Treasurer*, my little slice of the pie to communicate to our members the financial well-being of the Section. Despite my once-extended three-year term coming to a close in December, I have yet to offer anything of substance to the Section newsletter, something that should not be embraced by my successor.

In any case, I am happy to say that the Section is doing well, having in its possession just over \$39,500. This amount should keep us moving for a while, helping us to lure new and seasoned environmental professionals to our group.

This should not be reason to relax, though. We must continue to offer superior conferences, bolster our membership, and secure advertisements in our newsletter; the three primary ways we raise funds. This will help to ensure there are plenty of dollars to manage long after I depart this winter.

So, I guess this is hello and good-bye all at once. I enjoyed working with all of you as Section treasurer.

Devin DeMarco, *Treasurer*

APERG Continued from page 1

network of automated sensors and control points to manage and control landfill gas extraction and liquid addition. The goal of the IBM-IS is to maximize the ability of bioreactor landfills with automation of operation. Mr. Han's role in this project can be separated into two areas: 1) field-scale experiments to support the development of an IBM-IS for bioreactor landfill cells in Yolo County, CA; and 2) laboratory experiments to evaluate important flow properties of waste that are needed in models for the IBM-IS. The field experiments involve measuring the gas permeability and moisture conditions of refuse in situ. Mr. Han's primary role in the modeling work is to investigate relationships for the permeability (of gas and water) of refuse as a function of waste compaction, and water saturation.

Kim Knowlton, DrPH, MS

Project Title:

Profiling Carbon Dioxide, Pollen Concentrations, and Asthma in the New York City Region

Academic Institution:

Columbia University

Dr. Kim Knowlton is a Postdoctoral Research Scientist at the Mailman School of Public Health, Columbia University, in the Department of Environmental Health Sciences. Her dissertation research was conducted as part of the New York Climate and Health Project, a multidisciplinary study supported by an EPA STAR grant. Her work applied a health risk assessment model to project future changes in heat- and ozone-related

premature mortality under a changing climate in the 2050s, applying different assumptions about greenhouse gas emissions, heat acclimatization, and demographic change in the New York metropolitan region. Prior to earning her Doctorate in Public Health degree in 2005, Kim received a MS degree in Environmental and Occupational Health Science from Hunter College-CUNY, and a BS degree in Geological Sciences from Cornell University.

Her current research involves collaboration with air quality and climate modelers to improve understanding of the relationships among climate variability, air quality, and human health vulnerability. Supported by funding from the National Oceanic and Atmospheric Administration, the project places special emphasis on assessing the degree to which weather and air quality act independently and/or jointly in contributing to health effects.

Dr. Knowlton is the recipient of a 2006-2007 Mellon Foundation Teaching Fellowship at Barnard College, and in collaboration with Dr. Patrick L. Kinney developed a new graduate course at the Mailman School, *The Public Health Impacts of Climate Change*.

Dr. Knowlton's new research will consider two questions that have frequently been asked by local policymakers and their constituents: (1) To what extent might local emissions of greenhouse gases (notably CO₂) have local impacts? (2) Are there any detectable early health impacts of climate change already taking place where we live?

While conventional wisdom says that CO₂ emissions are globally dispersed within relatively short time frames, studies in a handful of North American cities have described an “urban CO₂ dome” with higher CO₂ concentrations in cities relative to the surrounding countryside. Furthermore, a growing body of literature suggests a link between rising temperatures and CO₂ concentrations and enhanced pollen-bearing plant growth and pollen production. Higher airborne pollen concentrations could affect residents with allergic rhinitis and/or asthma and exacerbate their symptoms. This could be of particular concern in New York City, where children were almost two times more likely than the average American child to be hospitalized for asthma in 2000. Her proposed research will characterize local CO₂ concentrations to see what effects local emissions have on local atmospheric conditions, and examine possible links between changes in seasonal pollen cycles and seasonal asthma onset. The goal of the work is to give policymakers more specific information on potential risks and benefits of regulating (or not regulating) local greenhouse gas emissions.

Richard Lucas

Project Title:

The Effects of Atmospheric N Deposition on Ectomycorrhizal Community Structure and Function

Affiliation:

University of Pennsylvania

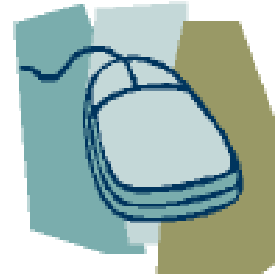
Mr. Lucas is currently a doctoral candidate at the University of Pennsylvania in the Department

of Biology, Ecology, and Evolution. He obtained his MS degree from New Mexico State University in 2002 and BS degree from Brigham Young University in 1999. This is his second year of support from the APERG program and as a result has the honor of being a *Raymond Manganeli Scholar*.

The primary goals of Mr. Lucas’ research are to investigate how the community structure and function of ectomycorrhizal fungi respond to changes in atmospheric nitrogen deposition. Specifically he is testing the following hypotheses: 1) Increases in inorganic N from increased atmospheric N deposition cause a shift from dominance by ectomycorrhizal taxa able to make more efficient use of organic sources of N (nitrophobic taxa) to dominance by taxa less able to make efficient use of organic sources of N (nitrophilic taxa); 2) Lignolytic, proteolytic and cellulytic activity (ecosystem functions performed by ectomycorrhizal fungi) will all be inhibited in areas receiving high amounts of inorganic N; and 3) Extramycelial hyphae, the functional unit of soil dwelling fungi, will be substantially reduced in areas receiving increased inorganic N from atmospheric N deposition.

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Website Committee Update



The Website Committee met this summer and came to a consensus regarding the Section and Chapter websites. The committee agreed that all of the Chapter websites should be consistent in format with the Section page and the A&WMA formatting standards. The committee will develop some guidelines and possibly templates to ensure that this is possible in the future. Also, the long term option of hiring an outside vendor to manage the websites was discussed.

If anyone would like to help with the Website Committee please contact Brady Wassom at 610-828-3078.

If you are interested in sponsoring this MASS-A&WMA publication through an advertisement, please contact Dr. James Blando at: james.blando@doh.state.nj.us