

# Environmental Science and Management Newsletter

Volume I, Winter 2009

[www.esm.pdx.edu](http://www.esm.pdx.edu)



## Welcome from the Chair- *Mark Sytsma*

You hold in your hands something new on the face of the Earth – the first ever Environmental Science and Management newsletter. “What is Environmental Science and Management?”, you may ask as you remember your years at PSU in Environmental Science and Resources. Well, it is the new name of our program. We changed the name last year to better reflect the direction that we thought the Program should go in the future. The Program is changing rapidly. In 2006, Catherine de Rivera and Elise Granek joined us. Last year, three faculty from the PSU Center for Science Education moved to our Program: Linda George; Marion Dressner; and Julie Smith. The influx of these incredibly bright and talented faculty into ESM ensures that we will continue to have a growing and relevant research and teaching portfolio.

The increasing interest in sustainability and the newly realized imperative to address global climate change and its consequent impacts has resulted in substantial enrollment growth in our courses. Our undergraduate enrollment in Fall Quarter, 2008, was about 25% greater than in Fall 2007. With the new faculty and larger enrollment I believe that the Environmental Science and Management Program (ESM) is positioned to provide some critical answers to very important environmental questions.

With the growth of the program our office staff has grown too. Teri McKenzie joined us last year as the Program Coordinator. Teri assists in advising undergraduates, provides support to graduate students and faculty, organizes Program events, and is developing our nascent alumni program, part of which includes creating this newsletter.

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## ALUMNUS PROFILE



### **TONI PENNINGTON, PHD 2007**

Toni Pennington completed her PhD in Environmental Science in 2007. Mark Sytsma was her advisor. Her dissertation addressed the biology and management of *Egeria densa*, a noxious aquatic weed in Oregon, California, and Washington.

Her research involved monthly sampling of plants in the San Joaquin/Sacramento Delta in California and in Big Creek Reservoir in Newport, Oregon.

Although the data are incomplete, there is strong evidence that Toni holds the record for generating frequent flier miles in the course of conducting her research in California. While a graduate student she received the best student paper at the annual meeting of the North American Lake Management Society – twice!

Toni is now an Aquatic Biologist in the Portland office of Tetra Tech, Inc. She works in the Surface Water Group, and is currently completing an aquatic invasive species management plan for Lake Tahoe.

## **Welcome** (continued from page 1)

I invite you to share your feedback and suggestions about this newsletter and other programming that you would enjoy as an alumnus. I also hope to meet many of you at our inaugural Alumni Reception and Lecture on February 26 (see Save the Date for details).

## **Student Awards**

Thanks to the generosity of two donors, the Environmental Science and Management Program presents scholarships each year to current students in recognition of their work. The David Dunnette Scholarship Award was established in memory of former ESM faculty member David Dunnette to support the research and professional development of current ESM graduate students. In the 2007/2008 academic year the awards were given to Ph.D. students Nadia Gillett and Sybil Kelley at an Awards Celebration in June.

Nadia Gillett's research at PSU has focused on diatoms (microscopic algae) and their use as bioindicators of water quality of rivers and streams in the Pacific Northwest. In addition, she is developing a web-based tool for individuals and agencies that work with diatoms.

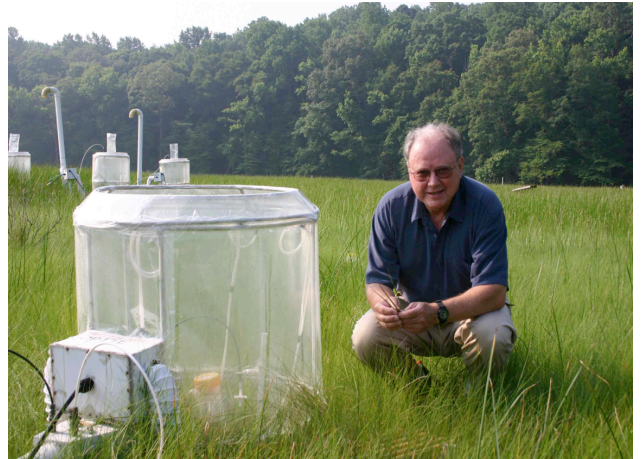
Sybil Kelley has been focusing on educational research through PSU's Center for Science Education (CSE) and Portland Public Schools (PPS). Sybil was on staff at Slough School, an environmental education program of the Columbia Slough Watershed Council. Her particular area of interest focuses on contextualized inquiry-based science in the local environment, especially in high needs, urban-based settings.

Two awards were also presented to undergraduate students. The Paul Croy Environmental Scholarship, established in honor of poet and teacher Paul Croy, provides support to students who are pursuing academic and career goals related to preservation of the environment. The 2008 Croy Award was given to junior Caitlyn Peake. The Barry Commoner Scholarship, named in recognition of Dr. Commoner for his contributions to environmental science, is also awarded annually to undergraduates with career interests in environmental science. The 2008 Commoner Award was given to Lee Demick.

If you are interested in supporting our students, please make a donation to the PSU Foundation. Your donation should specify one of the above scholarship funds or general ESM support. Mail your gift to the ESM Dept at PO Box 751, Portland, OR 97207. For more information about ways to support ESM, please contact Teri McKenzie at 503-725-9856 or [terim@pdx.edu](mailto:terim@pdx.edu), or the PSU Foundation at 503-725-4911 or visit <http://foundation.pdx.edu/>.

## Save the Date - ESM Alumni Kickoff Event!

PSU's Environmental Science and Management Department cordially invites you to attend an inaugural alumni reception on Thursday, February 26, beginning at 5:00 pm in Smith Memorial Student Union, Room 238. Immediately following at 7:00 p.m. will be a lecture entitled "**Beyond an Inconvenient Truth: Can We Control Rising CO<sub>2</sub> and Global Warming?**" presented by special guest Bert Drake, Senior Research Plant Physiologist, with the Smithsonian Environmental Research Center. His talk will summarize the approaches to energy conservation and possible alternatives to fossil fuels by capturing energy from the sun and wind, using hydrogen to power transportation, and nuclear power.



Dr. Drake is a graduate of the University of Maine, Colorado State University and Utah State University. Prior to joining the Smithsonian's Radiation Biology Laboratory in Rockville, Maryland, he worked at the Atomic Energy Commission's Plant Research Laboratory at Michigan State University on responses of plants to environmental stress. He also served as Guest Professor at the Institute for Plant Physiology at the University of Vienna and Guest scientist at the University of Paris, Gif Sur Yvette, France. During his 35 years at the Smithsonian Institution, Dr. Drake has been involved with many different research projects, but most notable would be his 20 year study of the effects of elevated CO<sub>2</sub> on a Chesapeake Bay wetland, now the longest running experiment of its type ever undertaken.

To RSVP, please call Teri at 503-725-9856 or email her at [terim@pdx.edu](mailto:terim@pdx.edu)

## School of the Environment Approved

Environmental Science and Management will join Geography and Geology as departments in the newly formed PSU School of the Environment. The School will be within the College of Liberal Arts and Sciences and will include the centers and institutes that are associated with the three departments.

The purpose of the School of the Environment is to further the development of environmentally related courses, research and community service in the associated departments. Many other departments at PSU have environmental interests and the School will work actively with those departments and faculty. The School will also facilitate research collaboration by faculty and strengthen the research collaborative that PSU has formed the USGS Oregon Water Science Center.

The next steps for organizing the School of the Environment include a closer coordination of the course offerings between the three departments, shared activities that increase visibility for the School, and continuing to build collaborative research projects. During the summer of 2009, we will finalized a plan for hiring a director.

We will post announcements to the School's website: [www.environment.pdx.edu](http://www.environment.pdx.edu).

Environmental Science &  
Management  
Portland State University  
Portland OR 97207-0751

**RETURN SERVICE REQUESTED**

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## *What's Inside*

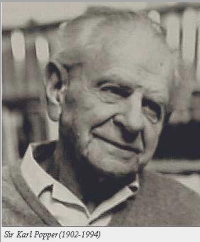
WELCOME FROM THE CHAIR

ALUMNI KICKOFF EVENT

ALUMNI PROFILE

DEPARTMENT AWARDS

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Sir Karl Popper (1902-1994)

*"We are not students  
of some subject  
matter, but students  
of problems. And  
problems may cut  
right across the  
borders of any subject  
matter or discipline."*

– Karl Popper

ESM faculty currently have 32 grants and  
contracts totaling over \$1 million

## **ESM Programs Receive Miller Sustainability Grant**

The Environmental Professional Program (EPP) and the Student Watershed Research Project (SWRP), in conjunction with statewide conservation organizations, recently received \$100,000 from the PSU Miller Sustainability Grant Award Program. The intent of this proposal is to build PSU as a basin-wide leader in the integration of increased basin-wide capacity in the private / public sector to support and implement the Columba River sub-basin plans.

The grant provides support for community-based river restoration workshops in the John Day River Basin. In addition, the project will engage both high school and graduate student in monitoring of local watershed restoration efforts.