

Winter 2012

JOHNS HOPKINS
UNIVERSITY

The Morton K. Blaustein Department of
Earth & Planetary Sciences

The Morton K. Blaustein, Department of Earth and Planetary Sciences, Johns Hopkins University
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Note from the Morton K. Blaustein Chair

Welcome to the Winter 2012 edition of the Earth & Planetary Sciences Newsletter. The Fall semester has been a busy time for E&PS. Most important, we welcomed ten new graduate students to the department in September and a new associate research scientist. In December, Scott Guzewich, a fourth year PhD student, presented his thesis on the atmosphere of Mars. Junior researchers like these, at the intersection of our research and teaching activities, are the lifeblood of E&PS. It's a pleasure to watch them mature as scientists and launch successful careers.

The department is flourishing elsewhere too. Our undergraduate majors now number 71 (with 18 more minors), split between E&PS and our new program in Global Environmental Change & Sustainability (GECS). In order to expand the GECS courses in sustainability science, we appointed Alexios Monopolis in Fall 2012 as a Lecturer in E&PS. Alexios comes to us from Harvard and holds a PhD in Environmental Science and Management. He taught a new GECS class on "Designing Sustainable Wellness" in the Fall. In Spring 2013 he teaches a new class on "Environmental Photojournalism and Filmmaking in the era of New Media." These courses are not part of traditional geoscience curricula, but they provide an important social perspective for students wanting to bridge Earth science with public health, governance, and policy. We're also searching for a new Assistant Professor in planetary sciences. The ideal candidate will explore links between processes on Earth and on other planets. This position, and the two more which we anticipate follow, will expand our research and teaching portfolios in another exciting direction.

We're extremely grateful to departmental donors who sustain much of this growth. In Fall 2012 we particularly appreciated the Ernst Cloos Visiting Scholar Program, for supporting the African Climate Workshop, and the Benton Visiting Lectureship, which was held by Prof. Andrew Watson this year. Dr. Beth Feingold's research also made the news, supported by a Pim Scholarship. Thank you for all of your donations.

With best wishes,



Thomas W. N. Haine

INSIDE THIS ISSUE

- Note from the Morton K. Blaustein Chair
- Seminars & Lectures
- Thank You to Our Donors
- George S. Benton Lecture
- In the News
- Welcome in 2012
- African Climate Workshop
- AGU 2012
- Alumni Corner

Seminars & Lectures

Bromery Seminar Series - 12:00 PM on Thursdays

Check our website for any changes <http://eps.jhu.edu>

- February 7-Matthieu Galvez
- February 14-Antoinette WinklerPrins
- February 21-Paul Block
- March 7-Edwin Kite
- March 21-Spring Break
- March 28-Britney Schmidt
- April 4-Caleb Fassett
- April 11-Kevin Lewis
- April 18-Sarah Hörst
- April 25- Marcelo Chamecki

Thank You to Our Donors

We are indebted to the following alumnae, alumni, friends, and organizations for contributing to the Department from July 1 to December 31, 2012.

Robert W. Adams, PhD.

H. Edward Clifton, Ph.D and
Conoco Phillips (matching)

Jonathan M. Cutler, PhD.

Elaine Eugster, Ph.D

Harindra J. S. Fernando, PhD.

Donald G. Hadley, PhD.

Lee M. Hendler

J. Stephen & Emily Z. Huebner

William R. Kaiser, PhD.

Mr. Charles Katlin

Mr. Gerald Kvasnovsky

Nancy E. Moll, PhD.

Phillip & Lou Ann Molling

Richard Palmer, Ph.D.

David M. Scotford, Ph.D.

Estate of Harvey Matson Smith in
memory of Mrs. Marie Lindberg Smith

Mrs. Roberta Meares Spang

Stuart A. Weinstein, Ph.D

Dr. Lyndon A. Yose

Ms. Roxanne E. Yose

Chen Zhu, PhD.

Please accept our apologies if we missed your name on the above list. If you will let us know, we would be most grateful, and will make sure we acknowledge your gift in the next newsletter. Your gifts mean more to us than you may realize. We are a small department. We remember all of our alumni and we are grateful that, through your gifts, you still support and are interested in the Department and its scholarly activities. Some of the things your gifts allow us to do are: admit more graduate students, pay for student summer field and laboratory work, maintain Singewald Field Camp and purchase equipment, teaching and research materials and equipment that are not covered by the department's operating budget. Your generous gifts make a significant difference to the Department of Earth & Planetary Sciences and we thank you

George S. Benton Lecture October 25, 2012

Dr. Andrew Watson FRS is a marine and atmospheric scientist and an expert on processes affecting atmospheric carbon dioxide and oxygen concentrations. He is a professor in the School of Environmental Sciences, at the University of East Anglia. Dr. Watson delivered the George S. Benton lecture entitled "Earth Revolutions: Lessons for our Future from the Earth's Deep Past" on Thursday, October 25th in Olin Hall, with a reception that followed. The Lecture was funded by endowed funds in honor of Dr. Benton. The Benton lectures are made possible by contributions from friends, colleagues, former students and the family of the late Professor Benton to honor his distinguished career at Johns Hopkins University.



*From Left to Right: Dr. Andrew Watson FRS,
Thomas Haine-Chair*



*Left to Right: Dr. Andrew Watson, Charlotte Benton, Jeff Benton,
and Thomas Haine*



*From Left to Right: Eugene Rasmusson, Charlotte Benton,
Jeff Benton, and Al Arking*

In The News

Ancient Water: The View from Space

Ben Zaitchik points out that a growing number of archaeologists are using satellite imagery to show pictures of their sites and to find new sites. "But it's rare to get the opportunity to work with an archaeologist like Mike Harrower, who is really interested in pushing the envelope in satellite and geospatial analysis to understand the rise and the operation of complex societies in the ancient world." To read more go to: <http://krieger2.jhu.edu/emails/deansnewsletter/2012-winter>



From Left to Right: Michael Harrower, Ben Zaitchik



Michael Harrower explaining excavations of the large (20 hectare) ancient (3000-year-old) town of Baita Semati to village elders in his best rudimentary Arabic (Indaga Ruba, Ethiopia).



Scott Guzewich

Congratulations to Scott Guzewich for completing his PhD thesis "Tides and dust in Mars atmosphere". Scott did most of his research at the JHU Applied Physics Laboratory (APL) as one of three E&PS APL fellows who are co-advised by APL scientists. Scott was co-advised by APL scientist Elsayed Talaat and E&PS faculty member Darryn Waugh. Scott took up a NASA Postdoctoral fellowship at Goddard Space Flight Center in February where he will continue his research into Mars' atmosphere.



Hamada Badr

E&PS Graduate Student Hamada Badr won Honorable Mention in the Best Student Presentation Competition at the 11th Annual Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences. The competition took place during the American Meteorological Society's 93rd Annual Meeting in Austin, Texas, in January 2013. Hamada's presentation, entitled "Statistical Predictive Models for Seasonal Rainfall Anomalies over Sahel," proposed a new statistical modeling technique for seasonal rainfall predictions in the Sahel region of West Africa--an area that is affected by frequent and sometimes devastating droughts. Hamada's co-authors on the presentation were E&PS Assistant Professor Ben Zaitchik and Department of Geography and Environmental Engineering Assistant Professor Seth Guikema.



Thomas Haine

Warmer, Fresher, Worrisome

Thomas Haine, the Morton K. Blaustein Chair and Professor of Earth and Planetary Sciences in the Krieger School of Arts and Sciences, has been working to monitor and understand how water flows out of the Arctic, especially freshwater. He warns that major changes in the Arctic ice cap could be part of a chain of effects that could alter ocean composition, Atlantic currents, and the rate of global climate change. To read more go to: <http://hub.jhu.edu/magazine/2012/winter/warmer-fresher-worrisome>



Beth Feingold

Proximity to Livestock Raises a Health Risk

Beth Feingold, our PIM Postdoctoral fellow, received some press attention for one of her dissertation papers. A new study found that people living near large concentrations of farm animals are at increased risk for carrying livestock-associated methicillin-resistant *Staphylococcus aureus*, or LA-MRSA, even if they have had no direct contact with animals.. To read more go to: <http://well.blogs.nytimes.com/2012/10/22/proximity-to-livestock-raises-a-mrsa-risk>

Better late than never....



Beth Feingold

Beth Feingold, PhD, MPH, MEd, is the Pim Postdoctoral Fellow in Global Change in the Earth and Planetary Sciences Department at The Johns Hopkins University and an affiliate at the Duke Global Health Institute at Duke University. She is interested in the overlap between geography and health. Beth has been selected as one of ten scientists specializing in environmental health and green chemistry named an Environmental Health Sciences 2012 Science Communications Fellow. She assesses spatial patterns and relationships, often by mapping environmental risks, demographics and public health data. Of particular interest are how industrial food animal production, climate, land use change and city planning impact people's health, and how these effects differ across communities. Her current projects in the Peruvian Amazon examine the health impacts, namely malaria risk, of road development, and changes in climate and land use. To read more go to: <http://www.environmentalhealthnews.org/ehs/Members/2012fellowsannounce>

Welcome in 2012 Graduate Students



Dana Brenner



Jenna Fleck



Fang Huang



Jihua Hao



Jose Molina-Tabares



Grace Kim

Owen Scholars Fellowship



Eshwan Ramudu



Kirby Runyon



Jordan Thomas



Nathan Towles

Postdoctoral Fellows



Partha Bhattacharjee



Arghya Goswami

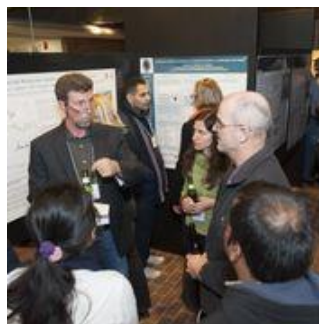
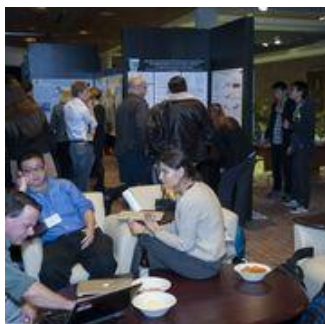
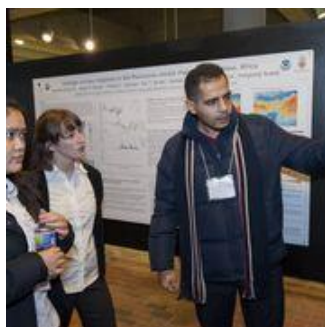


Alexios Monopolis

Lecturer

African Climate Workshop

On March 15th & 16th The Morton K. Blaustein Department of Earth & Planetary Sciences hosted our first African Climate Workshop which was sponsored by the Ernst Cloos Memorial Fund. The event was devoted to presentations, panel responses and full group discussions designed to promote cross fertilization between research programs and to inspire future collaborations. Topics that were included: global and regional drivers of African climate variability, utilizing and enhancing the modern observational record, applications of climate dynamics to paleoclimate studies and the challenge of projecting future climate conditions.



The first day of talks and discussions in the African Climate Workshop was followed by a poster session and reception in Olin Hall and then a dinner for the speakers at The Dizz a local restaurant. The lively poster session provided a chance for participants to present and discuss their work in detail. E&PS students and postdocs were well represented. Chloe Gao (senior E&PS undergraduate major), Alexi Russell (2nd year graduate student), Fisseha Berhane (2nd year graduate student), Hamada Badr (2nd year graduate student), Amin Dezfuli (PIM Postdoctoral Fellow) and Zelalem Bedaso (Blaustein Postdoctoral Fellow) all presented posters on their research related to African Climate.

AGU Meeting 2012

Alumni Reception: AGU Fall Meeting

This year's AGU Alumni Reception was another success. It's great to gather together and to catch up. We look forward to seeing everyone next year.

Alumni Corner

Attention all Alumni- We would love to hear from you and share your news in our next edition. Please contact Kim Trent @ ktrent2@jhu.edu. We look forward to hearing from you.

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