

*The Morton K. Blaustein, Department of Earth and Planetary Sciences, Johns Hopkins University*  
<http://eps.jhu.edu> 410-516-7135

## Note from the Morton K. Blaustein Chair

Welcome to the winter 2010 edition of the Earth and Planetary Sciences Newsletter. As usual it has been a busy six months and we have lots of news and activities to report.

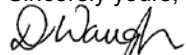
The first news to report is the very sad news that Owen Phillips died at his home in October 2010. Owen made major contributions to our understanding of ocean and other geophysical flows, as well as to the Department, and will be missed. A memorial in Owen's honor was held on 21 January 2011, and room 304 in Olin Hall is being renamed the Phillips Room in honor of Owen.

On a happier note, I am pleased to announce that Anand Gnanadesikan has joined the faculty. Anand is an ocean modeler at the forefront of modern climate research with expertise in several different areas including: physical processes in the ocean, ocean biogeochemistry, global climate dynamics, and climate mitigation strategies. I am sure we will be reporting of Anand's exciting research in future newsletters.

Since the last newsletter we hosted a George S Benton Lecture in which Prof. Rita Colwell presented some extremely interesting research showing the connections between climate, ocean biology and infectious diseases. We are now making final arrangements for a Walter M. Elsasser Memorial Lectures to be given by Dr. Marcia McNutt (director of the U.S. Geological Survey) on February 24, 2011. Dr. McNutt will be discussing the science of the the deepwater horizon oil spill, and this will again highlight the societal importance of Earth sciences.

Please keep your contributions for the Alumni Corner coming in. Also, please let us know if you would like to receive future copies of the newsletter electronically or if you have suggestions for improving the newsletter.

Sincerely yours,



Darryn W. Waugh

## New Faculty – Anand Gnanadesikan

We are pleased to announce the arrival of Associate Professor Anand Gnanadesikan. (Ph.D. MIT, 1994). Anand is an Oceanographer with his primary interest in the vertical circulation of the ocean and the connections between physical circulation, the biosphere, and large-scale ocean chemistry. His current projects include large scale ocean circulation, ocean color and climate and global biogeochemical cycling.

Prior to joining the department, Anand worked at NOAA's Geophysical Fluid Dynamics Laboratory and as a lecturer in the Atmospheric and Oceanic Sciences Program at Princeton University.

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## Upcoming Seminars & Lectures

**Elsasser Lecture** – February 24, 2011

- Marcia McNutt @ 4:00 PM–Olin Hall

**Futures Seminar** – March 10 & 11, 2011

**Bromery Seminar Series** – 12:00 PM on Thursdays

- Shawn Domagal–Goldman – February 3, 2011
- Dimitri Sverjensky – February 10, 2011
- Rebecca Lange – February 17, 2011
- Saswata Hier–Majumder – March 3, 2011
- TBA – March 17, 2011
- Alan Jay Kaufman – March 31, 2011
- Ning Zeng – April 7, 2011
- Mitch Pavao–Zuckerman – April 14, 2011
- Ruth Weiner – April 21, 2011
- Kurt Konhauser – April 28, 2011
- Walter Robingson – May 5, 2011



Anand Gnanadesikan

## Thank You to Our Donors

We are indebted to the following alumnae, alumni, friends, and organizations for their contribution.

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J. Stephen & Emily Z. Huebner	ACS Petroleum Research Fund	Chen Zhu

*The above donors have donated between the periods of January 2010 – December 2010. 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 we'll 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 heartened to see 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 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.*

## Benton Lecture – October 19, 2010

Dr Rita Colwell, professor at both University of Maryland at College Park and Johns Hopkins University Bloomberg School of Public Health, delivered the George S. Benton Lecture "Climate, Oceans, Environment, and Human Health: Biocomplexity in Action" on Tuesday, October 19, 2010 at Olin Hall with a reception that followed. The Lecture was funded through a Benton Endowment fund and co-sponsored by the Environmental, Health & Sustainability Initiative (ESHI) and the Global Water Program (GWP). The George S. 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: Charlotte Benton and Rita Colwell*



*From left to Right: Peter Olson, Charlotte Benton, Rita Colwell and Darryn Waugh*



*From left to Right: Jeff Benton, Jean Sutter and Darryn Waugh*

## In Memory of Owen M. Phillips – December 30, 1930 – October 13, 2010

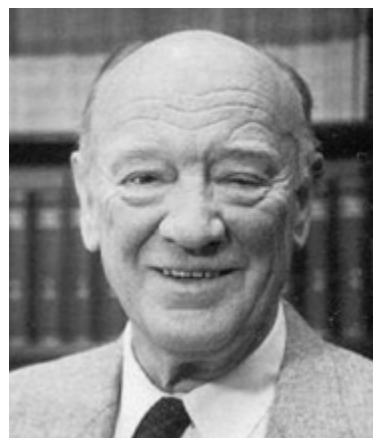
In a scientific career spanning more than five decades, Owen M. Phillips pioneered the application of fluid mechanics to the upper ocean, the atmosphere, and the Earth's crust. He made fundamental and long-lasting contributions to our understanding of how ocean waves are generated by the wind, the formation of giant waves, turbulent mixing in the atmosphere and ocean, and chemically reactive flow in subsurface aquifers.

Owen was prominent in the Johns Hopkins academic community, as Decker Professor of Science and Engineering and through years of service on the Academic Council. He was a founding member and the longest-serving Chair of the Department of Earth and Planetary Sciences, playing decisive roles in its formation and growth.

His award-winning books include monographs *"Dynamics of the Upper Ocean"*, *"Flow and Reaction in Permeable Rocks"*, and *"Geological Fluid Mechanics"*, and his general interest books include *"The Heart of the Earth"* and *"Last Chance Energy Book."* Owen was recipient of the Adams Prize from the Royal Society of London and the Sverdrup Gold Medal from the American Meteorological Society. He served as President of the Maryland Academy of Sciences, editor of the *Journal of Fluid Mechanics*, and was elected Fellow of the Royal Society, Fellow of the American Meteorological Society, member of the U.S. National Academy of Engineering, Honorary Fellow of Trinity College, Cambridge and Fellow of the American Geophysical Union.

To his many friends and colleagues, Owen was an inspirational and gracious man, who combined a deep intellect, a lively spirit, and a generous heart.

A memorial was held in Owen's honor on Friday, January 21, 2011. Those who spoke were Ken Melville, University of California; Stephen Davis, Northwestern University; and Carl Christ, Johns Hopkins University. Owen will be greatly missed and never forgotten.





## In the News:



*Lijun Xia*

## Graduate Student Wins Best Presentation Award

Graduate student Lijun Xia has won the Best Student Oral Presentation Award given by the Soil Ecology Section of the Ecological Society of America. Lijun's talk entitled "Combined Effects of Forest Age, Litter Quality and Earthworm Abundance on Soil C Efflux" was given in August 2010 at the ESA Annual Meeting in Pittsburgh. Congratulations Lijun!

## EPS Exhibit on the USA Science and Engineering Expo

More than 500,000 people visited the USA Science and Engineering Expo on Oct 23-24, 2010 on the National Mall (<http://www.usasciencefestival.org/>). Four booths, set up by Johns Hopkins, were among the 1500 hands-on exhibits. The theme of the IDIES (Institute of Data Intensive Engineering and Science) tent was "The Expanding Data Universe: From Galaxies to Sensor Networks". The two activities by EPS demonstrated two major parts of the global carbon cycle: CO<sub>2</sub> uptake the plants and respiration. Kids and adults equally enjoyed blowing into the CO<sub>2</sub> sensors and measuring the CO<sub>2</sub> concentration against the global average and background levels in the Mall. The exhibit also featured a large screen with 3D visualization movies of the Universe. We had a steady stream of visitors of all ages. It was hard but rewarding work. Many thanks for EPS graduate students Chih-Han Chang, Scott Pitz and Lijun Xia, and the students at the Department of Physics and Astronomy for volunteering their time!



*Kathy Szlavec*

## New Dinosaur Species Named for Johns Hopkins Postdoc



*Left to Right:*

*Celina and Marina Suarez*

A new species of dinosaur discovered near Green River, Utah, has been named for a Johns Hopkins University postdoctoral student and her twin sister whose geology work while they were graduate students at Temple University helped define the new species. To read more go to <http://releases.jhu.edu/2010/12/21/new-dinosaur-species-named-for-johns-hopkins-postdoc/>

Welcome in 2010

Graduate Students



Tiffany Smith



Alexander Fuller



Sara Rivero

Postdoc



Chaim Garfinkel

Asst. Research



Clement Alo

Research Professor



Richard Stolarski

Asst. Research Professor



Olivier Barnouin



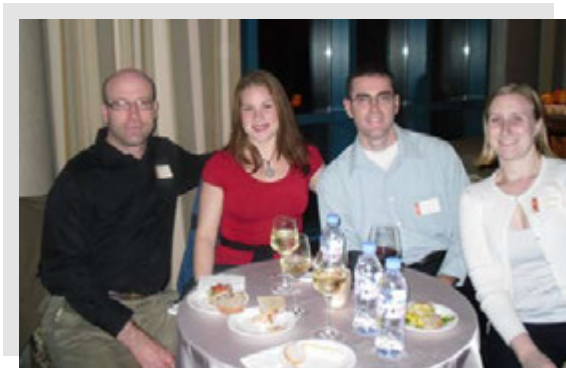
James Roberts



Nathaniel Winstead

AGU Meeting 2010

**Alumni Reception: AGU Fall Meeting** As many of you know, E&PS participates in the AGU Meeting in San Francisco every year. This year we held an alumni reception which was a GREAT success. Thank you to everyone who attended. We hope to see more alumni at next year's reception at the AGU conference.



Left to Right Nathan Winslow, Holly Brown, Scott Guzewich and Christina King



Left to Right Jon Aumou, Sara Hoover, Peter Driscoll

Alumni Corner

**Jill Banfiled**, who is an alumnus of our department, received the Franklin Medal, L'Oreal Award, which recognizes exceptional women scientists. For more information please go to:  
[http://berkeley.edu/news/media/releases/2010/11/09\\_franklinmedal\\_lorealunesco.shtml](http://berkeley.edu/news/media/releases/2010/11/09_franklinmedal_lorealunesco.shtml)



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**Attention all Alumni-** If you have something you would like to share in the next edition, please provide us information by email to [ktrent2@jhu.edu](mailto:ktrent2@jhu.edu)



**Mark Murphy** -- (PhD 1990) After graduation, I worked at Pacific Northwest National Laboratory, in Richland WA, doing research in volcanic hazards, impacts of explosive volcanism on climate and the emplacement of large lava flows. I also taught geology and environmental science at a nearby college. I left the lab for the Southwest in the late 90's to begin a career in consulting, eventually focusing on how fluvial geomorphology, hydrology and water quality impact riparian and aquatic habitat. This year I became part-owner of an existing small water resources consulting firm, GeoSystems Analysis, in Tucson AZ. The firm specializes in vadose-zone processes, as applied to ground water recharge, ground water protection, stream restoration and general hydrogeological processes. My wife, Connie, passed away about five years ago. My twin sons, Jack and Fred, just graduated from the University of New Mexico. My daughter, Rebecca, is getting married in 2011 and lives in Las Cruces, NM. My eldest son, Nathaniel lives and works in Albuquerque, NM. I stay in touch, more or less, with many members of the Marshian Petrology.

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