

January 25, 2010

THE HEAD'S PERSPECTIVE

As part of the continued scientific effort focused on Haiti, Dr. Eric Calais, Dr Andy Freed and graduate student Sarah Stamps are headed to Haiti to work with Haitian and international colleagues to examine patterns of fault slip associated with the recent earthquake and to install additional GPS equipment to monitor post-earthquake responses. NSF's rapid response program is funding this effort which will provide Haitian authorities and others involved in recovery efforts with a better understanding of future risks.

Other EAS people with recent major accomplishments include Dr. Matt Huber, who co-authored a paper in *Nature* titled "Mammalian biodiversity on Madagascar controlled by ocean currents", Dr. Ernie Agee who was awarded the American Meteorological Society's Cleveland Abbe Award for Distinguished Service to Atmospheric Sciences by an Individual, Dr. Jay Melosh who co-authored a new report from the National Research Council that lays out options NASA could follow to detect asteroids and comets that could pose a hazard if they cross Earth's orbit, alumnus Dr. Budhendra Bhaduri who was named to the Mapping Science Committee of the National Academy of Sciences, alumnus Steve Templeton who was promoted to Chief Meteorologist at KMOV-TV (Channel 4) in St. Louis, and staff member Amber Everest who has been promoted to Proposal Specialist for the new college Pre-award Center. EAS is very proud of all that our current members and alumni are achieving!

As you might know, Purdue is proposing a series of moves to deal with a projected budget shortfall associated with reduced state funding. Although this includes "strategically restrained hiring" we have heard that this will not impact our current faculty search in Planetary Sciences. I am looking carefully at all areas of our budget to ensure that we are using our resources in the most effective ways possible; in response to recent questions, I want to assure you that we will continue to support key activities that are critical for the quality of our education and research programs, such as field trips and our graduate expo. We are being careful with our resources but continue to invest in the things that are the foundation for our success.

UPCOMING MEETINGS

Thursday, January 28

- Executive Committee, CIVL 2173 (8:30 a.m.)

Note: The EAS Faculty meeting for February 1 has been changed to **February 8**. Please make the change to your calendars.

COS SPRING 2010 FACULTY MEETINGS

February 9, 4:00-5:30 p.m., LWSN 3102A/B

April 13, 4:00-5:30 p.m., LWSN 3102A/B

Please mark your calendars and plan to attend!

OUR RECENT PUBLICATIONS

Matthew Huber and Jason Ali published "Mammalian biodiversity on Madagascar controlled by ocean currents" in *Nature* (Advanced Online Publication: J. Ali and M Huber. Mammalian biodiversity on Madagascar controlled by ocean currents. *Nature* (2010) <http://www.nature.com/nature/journal/vaop/ncurrent/full/nature08706.html>), which provides a solid physical oceanographic basis for one of more important paradigms in island biogeography, Simpson's "Sweepstakes Hypothesis". The publication has been widely discussed in the press, for example by the BBC, National Geographic, and other international news and radio shows.

RECENT PRESENTATION

Jon Harbor delivered the Hammond Lecture in the Department of Geography and the Department of Earth and Planetary Sciences at the University of Tennessee on Jan 21st. The lecture was entitled, "Glaciers, Ice Sheets and Spectacular Mountain Landscapes: What studying landforms tells us about glaciation". He also led a session on the implications of geosciences education research for teaching, gave a presentation in the Applied Geomorphology class, and met with a group of seven EAS alumni and their families who live in Knoxville.

REMINDER TO FACULTY

If you have not already done so, please contact Dee (gillesp@purdue.edu) if you would like to have your course(s) evaluated this semester (please provide the title of your course(s) to be reviewed).

IMPORTANT NOTICE ABOUT THIS NEWSLETTER!!!

This newsletter will now be used as the primary information source for current and upcoming events, announcements, awards, grant opportunities, and other happenings in our department and around campus. Active links to additional information will be provided as needed. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well. Those using paper copies of the newsletter should go to our newsletter archive on the EAS website at www.purdue.edu/eas/ and **Click on News** to access active links as needed. Material for inclusion in the newsletter should be submitted to Gina Richey (grichey@purdue.edu) by **Friday noon** of each week for inclusion in the Monday issue. **If it is in the newsletter, we assume you know about it and no other reminders are needed.**

AGEE RECEIVES ABBE AWARD



Ernest M. Agee was awarded the Cleveland Abbe Award for nearly 40 years of contributions and service to atmospheric science at the local, national, and international levels.

The Cleveland Abbe Award for Distinguished Service to Atmospheric Sciences by an Individual is presented on the basis of activities that have materially contributed to the progress of the atmospheric or related sciences or to the application of the atmospheric or related sciences to general, social, economic, or humanitarian welfare.

FORMER ALUMNUS APPOINTED TO PRESTIGIOUS MAPPING SCIENCE COMMITTEE

OAK RIDGE, Tenn., Jan. 12, 2010 – Budhendra Bhaduri of Oak Ridge National Laboratory has been selected to serve a three-year term on the Mapping Science Committee of the National Academy of Sciences/ National Research Council.



Bhaduri received his PhD in EAS in 1998.

The Mapping Science Committee organizes and oversees National Research Council studies that provide independent advice to society and to government at all levels on geospatial science, technology and policy. [Read more...](#)

FAREWELL AND GOOD LUCK AMBER!

We wish Amber Everest good luck in her role in the new pre-proposal center. Amber's passion for proposals makes this a wonderful opportunity for her and will allow the EAS faculty and staff an opportunity to continue to work with her in her new role as she will be serving the pre-award/proposal needs of Science and PNHS departments.

GEOLOGISTS TO EVALUATE FUTURE HAITI RISKS

Hunt for survey markers may reveal crucial data

US geologists hope to arrive in Haiti next week to pick through the rubble of the earthquake that struck on 12 January, killing tens of thousands of people. The scientists will hunt for survey markers that could help them better understand the geology of what happened — and perhaps determine where future risk lies.



The stainless-steel pins, usually set in concrete bases, are crucial landmarks for measuring earth movements as small as 1 millimeter. To date, the array of 30 devices in Haiti, and 40 in the Dominican Republic — which shares the island of Hispaniola with Haiti — has yielded the best analysis yet of the local earthquake risk. Finding them could allow researchers to better estimate the likelihood of future fault movements.

Major earthquakes are rare in the region. But in 2008, a team led by **Eric Calais**, a geophysicist at Purdue University in West Lafayette, Indiana, reported at a Caribbean geology conference that the geodetic markers revealed a dangerous strain build-up along Haiti's Enriquillo fault — enough to produce a magnitude-7.2 quake. Last week's quake, on that fault, was a magnitude 7.0. [Read more...](#)

CELERY BOG WEBSITE UPDATE

Several years ago a group of students created a website designed to provide the general public and school children with scientific and general information about the Celery Bog. We are updating the website, and are looking for any additional or new information that you might like to contribute to this well-used site. The current website can be found at: <http://www.purdue.edu/eas/geomorph/celerybog/>. If you have any information or research that you would like to contribute please contact Paula Giryn at pgiryn@purdue.edu and Jon Harbor at jharbor@purdue.edu

EAS TECHNOLOGY SUPPORT NEWS

myPurdue Downtime Scheduled for February

The myPurdue portal will be down from 6 p.m. February 10 through 7 a.m. February 15 to install an upgrade to the Banner student system.

Additional information may be found at:

http://www.purdue.edu/newsroom/purduetoday/faculty_staff_news/2010/100121_mypurdue.html.

Workshop Available: Getting Started with Clickers

e-Instruction provides in-class, real-time electronic quizzing and polling capability. The system is available in all West Lafayette TIC (Technology in Classroom) sites and ITaP labs. Instructors can download the software to an office or home machine for free.

Additional information on the workshop may be found at:

<http://www.itap.purdue.edu/training/course/index.cfm?offeringID=4203>.

COMMUNITY OF SERVICE LEARNING FACULTY FELLOWS GRANT

Once again, the Office of the Provost is inviting applications for Purdue's *Community of Service Learning Faculty Fellows Grant* program from eligible faculty members. As you know, the *New Synergies* strategic plan includes goals for expanding and institutionalizing Service Learning into the fabric of academic life at Purdue University. Faculty leadership is the key to achieving this. This grant program is designed for faculty members who have demonstrated a strong commitment to, and desire to play a leadership role in, Service-Learning. Up to five faculty members will be chosen for this sixth round of grants, each grant for \$5000. Grant recipients will work alongside the campus Service Engagement Advisory Board and the Center for Instructional Excellence. [Read more...](#)

Applicants must submit a completed proposal to CIE, 730 YONG, on or before Monday, **February 15**. Application instructions and a cover page template are available [here](#). For questions regarding the application or the grant itself, please contact Marne Helgesen (helgesen@purdue.edu), Director of the Center for Instructional Excellence.

GREAT OPPORTUNITIES FOR FACULTY, POST-DOCS AND GRADUATE STUDENTS IN THE GEOSCIENCES

Several *On the Cutting Edge* workshops that have application deadlines in the near future:

Developing Student Understanding of Complex Systems in the Geosciences: Deadline February 1. <http://serc.carleton.edu/NAGTWorkshops/complexsystems/workshop2010/index.html>.

This workshop April 18-20 at Carleton for ~30 people will bring together geoscience faculty, cognitive scientists/educators, and faculty from other disciplines to help us understand what works in developing students' ability to work with complex systems.

Teaching Geoscience with Service Learning - There is still room in this upcoming virtual workshop for participants interested in designing an activity that engages students in using the science they are learning in service to the local community.

- First session: February 3-5, 2010
- Second session: February 8-9, 2010

<http://serc.carleton.edu/NAGTWorkshops/servicelearning/workshop10/index.html>

Workshop for Early Career Faculty: Teaching, Research, and Managing Your Career: Deadline March 3.

Our annual offering for pre-tenured faculty will be held June 6-10 at William and Mary.

<http://serc.carleton.edu/NAGTWorkshops/earlycareer2010/index.html>

Preparing for an Academic Career in the Geosciences: Deadline March 10

Our annual offering for graduate students and post-docs will be held at Stanford July 29-Aug 1. <http://serc.carleton.edu/NAGTWorkshops/careerprep2010/index.html>

Looking slightly farther out:

Using GIS and Remote Sensing to Teach Geoscience in the 21st Century and

Teaching Geoscience in the Field in the 21st Century: Deadline: March 20

This pair of workshops will be held back to back this August (13-16; 17-19) at Montana State University. Come to either or both.

<http://serc.carleton.edu/NAGTWorkshops/gis10/index.html>

<http://serc.carleton.edu/NAGTWorkshops/field/workshop10/index.html>

A full list of this year's Cutting Edge workshops can be found at:

<http://serc.carleton.edu/NAGTWorkshops/workshops.html>

Selected funding opportunities

VACCINE Seed Project Competition

<http://www.purdue.edu/discoverypark/vaccine/seed/>
Deadline: February 1. Purdue's DHS-funded Visual Analytics for Command, Control, and Interoperability Environments (VACCINE) center is now considering applications for funding seed projects. Projects will be selected through a peer-review process led by the VACCINE Leadership Board. The VACCINE 2010 Seed Project Funding RFPs should identify innovative research and educational needs in high priority visual analytic areas of homeland security.

National Research Council Research Associateship Programs

www.national-academies.org/rap

Deadlines: February 1, May 1, August 1 and November 1. The National Research Council (NRC) of the National Academies is soliciting applications for Graduate, Postdoctoral and Senior Research Awards. These programs provide opportunities for scientists and engineers of unusual promise and ability to perform research on problems largely of their own choosing, yet compatible with the research interests of the sponsoring laboratory. Associateships will be awarded in the fields of chemistry; earth, atmospheric and space sciences; engineering, applied sciences and computer science; life and medical sciences; mathematics; and physics. Note: Prospective applicants must initiate dialogue with Advisers at the lab(s) before application deadline.

NIH National Institute of Environmental Health Sciences

[Mechanism for Time-Sensitive Research Opportunities in Environmental Health Sciences \(R03\)](#) (PAR-10-083) National Institute of Environmental Health Sciences Application Receipt Date(s): See FOA

[Mechanism for Time-Sensitive Research Opportunities in Environmental Health Sciences \(R21\)](#) (PAR-10-084) National Institute of Environmental Health Sciences Application Receipt Date(s): See FOA

These funding opportunity announcements (FOAs) are intended to support research in which an unpredictable opportunity has arisen to collect human or animal bio-sample baseline or exposure data (e.g., following natural or made-made disasters, health care policy changes; etc). The distinctive element of the project should be the need for empirical study for a situation that was not foreseeable and is achievable only if begun within a short time frame. There are four distinguishing features of an eligible study: 1) the unforeseeable nature of the opportunity; 2) the scientific value and feasibility are clear; 3) rapid review and funding are required in order for the scientific question to be approached and for the research design to be carried out; and 4) the knowledge gained from the study cannot be obtained through the traditional NIH cycle of review and award. It should be clear that the research question offers an uncommon and scientifically significant research opportunity that could only become available if the project is initiated with minimum delay.

ARRA (stimulus) funding and limited submissions:

Information for Purdue researchers about ARRA funding opportunities and requirements may be found at <http://www.purdue.edu/Research/vpr/recovery/index.php>. New ARRA funding opportunities are posted on this site as they are issued by the sponsors.

[ARRA Funding Opportunities](#) A number of new NIH ARRA funding opportunities have been posted to the website above. These include:

[Institutional Comparative Effectiveness Research Mentored Career Development Award \(KM1\)](#); Due date: March 25, 2010 (LIMITED SUBMISSION)

[Accelerating Adoption of Comparative Effectiveness Research Results by Providers and Patients \(R18\)](#); Due date: March 11, 2010

[PROSPECT Studies: Building New Clinical Infrastructure for Comparative Effectiveness Research \(R01\)](#); Due date: February 17, 2010 (deadline extended)

Please note: E-mail notifications of new limited submission opportunities will continue to be sent as soon as the OVPR is aware of these programs. Limited submission information also is posted at <http://dagon.admin.purdue.edu/cgi-bin/lisid.cgi>.

Funding resources: The OVPR website includes a link entitled *Funding Resources*, which may be found at http://www.purdue.edu/research/vpr/funding/funding_resources.php. This link includes two sections: "E-mail Alerts" and "Search Tools." Those who would like assistance in setting up their COS e-mail funding alerts may want to take advantage of our tutorial, which may be found on the *Funding Resources* link above.

Another resource for corporate and foundation funding opportunities is the University Development Office. UDO lists funding opportunities at http://author.www.purdue.edu/giving/corp_fdn/Grants_List.html.

Other: The National Science Foundation has released *Science and Engineering Indicators 2010*, which provides comprehensive information and statistics about the U.S. and international science and engineering enterprise. The full document is available at <http://www.nsf.gov/statistics/seind10>. The *2010 Digest* is available at <http://www.nsf.gov/statistics/digest10>.

NSF NEW RFP FOR MRI PROGRAM

The National Science Foundation has issued its new RFP for the *Major Research Instrumentation (MRI)* program. The full program announcement may be found at <http://www.nsf.gov/pubs/2010/nsf10529/nsf10529.htm>. **Please read the announcement carefully for changes that have been made to this year's competition.**

Limited Submission numbers and deadlines: As in previous solicitations, an institution may submit no more than a total of three proposals, at least one of which must be for instrument development. Faculty from an institution may not participate in proposals led by other institutions beyond the three allowed. Therefore, Purdue West Lafayette faculty may not participate in any (funded) way in instrument acquisition or development proposals led by other institutions, including Purdue regional campuses, outside of the three proposals selected through Purdue's limited submission process.

Deadlines are as follows:

Monday, February 8: Letters of Intent due to the OVPR (Please indicate acquisition or development in the title).

Monday, March 8: Preproposals due to the OVPR.

Friday, March 12: Rankings due to the OVPR.

Wednesday, April 21: NSF deadline.

Please note: Letters of intent, preproposals, and rankings to the OVPR should be e-mailed to OVPRlimited@purdue.edu. Purdue's limited submission policy and template for letters of intent may be found at <http://dagon.admin.purdue.edu/cgi-bin/lisid.cgi>.

OUTSTANDING GRADUATE STUDENT AWARD

Please consider nominating a graduate student for the Outstanding Graduate Student Award to be given out at the EAS Awards Banquet to be held on April 15, 2010. Deadline for receipt is January 29. The details and an application can be found [here](#).

EAS STUDENT AWARDS AND SCHOLARSHIPS

Listed below are the Endowed Scholarships and Awards that are offered annually through the Department of Earth and Atmospheric Sciences. These awards have been established through generous donor gifts and are awarded by departmental committees that follow guidelines specifically established by the donor (including eligible student rank and discipline of study). Please see the list for a summary of the eligible ranks and disciplines for each award. Multiple recipients may be selected for some of the awards and scholarships. Details and application materials can be found by clicking [here](#).

Note the earlier deadline of Friday, January 29, for the return of applications. All awards will be announced at the Annual EAS Awards Banquet which will be held the evening of Thursday, April 15th, 2010. Good luck!

Award Name	Eligible Rank	Discipline of Study
W. J. Hinze Scholarship	Senior or Graduate	Exploration Geophysics
Terry R. West Scholarship	Undergrad and Graduate	Applied Geological Sciences
Cedric J. Newby Scholarship	Jr/Sr Undergraduate or Graduate	Solid Earth Sciences
Michael C. Gardner Memorial Award	Graduate	Tectonics/Stratigraphy
Mobil Oil Geology Award	Graduate	Geology

GRANTS AVAILABLE TO STUDENTS FOR SERVICE PROJECTS

Funds are available to provide grants to students or student organizations for work on community service learning projects.

The program, sponsored by the vice provost for engagement, has the goal to expand the community involvement of Purdue students in partnership with communities, nonprofit agencies, schools, and governmental bodies.

A copy of the Application and Guidelines for the Student Grant Program for Community Service/Service Learning Projects can be found online at

www.purdue.edu/engagement/service/sgpcs.shtml.

Applications are due for the spring semester projects on or before February 12.

2010 GRADUATE STUDENT GRANT PROGRAM THE SPACKMAN AWARD

The Society for Organic Petrology (TSOP) invites applications for graduate student research grants, the Spackman Award. The purpose of the grants is to foster research in organic petrology (which includes coal petrology, kerogen petrology, organic geochemistry and related disciplines) by providing support to graduate students from around the world, who demonstrate the application of organic petrology concepts to research problems.

Monetary awards up to a maximum of \$1,000 will be granted. TSOP will also provide Merit Awards, in the form of certificates redeemable for TSOP publications, to top-ranking applicants not receiving grants. [Read more...](#)

RESEARCH EXPERIENCES FOR UNDERGRADUATES MARYLAND SEA GRANT – SUMMER 2010

This program is especially designed for students majoring in such fields as biology, chemistry, ecology, physics, engineering, mathematics, and marine and environmental science.

Details:

- 12-week program during summer 2010. May 23 to August 15.
- \$4200 stipend plus housing and travel to and from site
- Details and application guidance can be found at: <http://www.mdsg.umd.edu/REU>
- Applications due: February 17, 2010

Particular interest is in supporting talented students from institutions where access to marine science and to research projects is limited and who are from underrepresented groups in science, technology, engineering and math (STEM).

For more details, see the flyer in this newsletter.

A NOTE FROM OUR ACADEMIC COUNSELOR Career News

College of Technology Career Fair

Wednesday, **February 3**, '10. PMU Ballrooms, 9 a.m. – 3 p.m.

CCO Workshops

The CCO holds workshops on interviewing, job fairs, resumes, and related topics. If interested, find out what's available here:

<https://www.cco.purdue.edu/asp/Calendar/Calendar.asp?Type=2> .

Study Abroad

Most study abroad program deadlines for fall and summer will be March 1; February 1 for a few, specific programs. If considering your options, travel online first: <http://www.studyabroad.purdue.edu/> .

M.Sc. in Marine Geology Memorial University of Newfoundland

The Memorial University of Newfoundland, Earth Sciences Department, St. John's, Newfoundland, is seeking graduating seniors or current graduate students for a research assistantship in a field-oriented research program studying seabed geology and benthic habitat characteristics in the Gulf of Maine.

There are extensive facilities for collection and analysis of marine geoacoustical data and core collection and analysis, including imaging, stable isotope, and radioisotope geochemistry. The project is part of a large Canada-NSERC-funded research program focused on marine biodiversity (<http://www.chone.ca/>) headquartered at Memorial University; this specific project is co-led by Dr. Peter Lawton (DFO St Andrews, Peter.Lawton@dfo-mpo.gc.ca) and Dr. Sam Bentley (Memorial University). For additional information, contact Dr. Sam Bentley (+1 (709) 737-2097, sbentley@mun.ca) or visit <http://www.mun.ca/earthsciences/>.

Nancy

HAPPY BIRTHDAY!!!
Tom Tharp – January 28



IMPORTANT NOTICE ABOUT THIS NEWSLETTER

This newsletter will now be used as the primary information source for current and upcoming events, announcements, awards, grant opportunities, and other happenings in our department and around campus. Active links to additional information will be provided as needed. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well. Those using paper copies of the newsletter should go to our newsletter archive on the EAS website at www.purdue.edu/eas/ and **Click on News** to access active links as needed. Material for inclusion in the newsletter should be submitted to Gina Richey (grichey@purdue.edu) by **Friday noon** of each week for inclusion in the Monday issue. **If it is in the newsletter, we assume you know about it and no other reminders are needed.**

Also, as an additional resource for information about departmental events, seminars, deadlines, etc., see our departmental calendar at <http://calendar.science.purdue.edu/eas/seminars>.

For answers to common technology questions and the latest updates from the EAS Technology Support staff, please visit <http://www.purdue.edu/eas/resources/it>.



RESEARCH EXPERIENCES FOR UNDERGRADUATES

Maryland Sea Grant • Summer 2010



www.mdsg.umd.edu/Education/REU

THIS SUMMER, Maryland Sea Grant will offer fourteen undergraduates the opportunity to conduct marine research on the Chesapeake Bay — the program is especially designed for students majoring in such fields as biology, chemistry, ecology, physics, engineering, mathematics, and marine and environmental science.

During this 12-week program (May 23-August 15), each student will work with a science mentor on an individual research project at one of two marine labs located on Chesapeake Bay: the University of Maryland Center for Environmental Science's* (UMCES) Chesapeake Biological Laboratory at Solomons, Maryland, or its Horn Point Laboratory, at Cambridge, Maryland.

Research areas include:

- estuarine processes
- benthic environment
- physical oceanography
- contaminants
- fisheries
- molecular biology and genetics
- environmental chemistry
- submerged aquatic vegetation
- modeling and analysis
- coastal observing systems

The Maryland Sea Grant Program, with support from the National Science Foundation, will provide each fellow with a stipend of \$4,200, housing costs and round-trip travel expenses.

To apply, visit the REU web site listed above to complete the online application form or contact Maryland Sea Grant at 301-405-7500. The deadline for receipt of applications is February 12, 2010.



STUDENTS SPEND THE SUMMER at either Chesapeake Biological Laboratory in Solomons or Horn Point Laboratory in Cambridge. Visit the REU website to learn about past programs and ongoing research by faculty who work with REU students.



* UMCES labs are located on the Maryland portion of the Bay, with HPL on the eastern shore and CBL on the western.



Student orientation includes a science cruise on the Bay and up the Patuxent River aboard the UMCES research vessel *Rachel Carson*.

REU Summer Fellowships are supported by the National Science Foundation