

November 22, 2010



PURDUE UNIVERSITY

The College of Science Alumni Association
cordially invites you to the

College of Science Winter Commencement Reception

Sunday, December 19, 2010
11:30 a.m. ~ 1:00 p.m.

Purdue Memorial Union
East/West Faculty Lounge
101 North Grant Street
West Lafayette, Indiana

RSVP by December 14

Please register at:

https://purdue.qualtrics.com/SE/?SID=SV_8C9s4EV2AfJBNGc

Questions: College of Science 765-494-1857 or
ScienceEvents@purdue.edu

Please let us know of special needs.

Parking available at the Grant Street parking garage
across from the Purdue Memorial Union.

ARTICLE IN TIME

See the [article](#) in *TIME* about Eric Calais' paper in Nature Geosciences last month identifying the Léogâne fault in Haiti.

PANEL MEMBER

Jeff Trapp was a member of the NSF Observing Facilities Panel, which met 15-17 November in Boulder, Colorado.

PRELIMINARY EXAM

Tuesday, November 23, at 9 a.m. in CIVL 2201:
"Evaluating the Impact of Atmospheric Aerosols and Tropospheric Ozone on Global Terrestrial Carbon Dynamics." PhD Preliminary Exam Presentation for Min Chen; Advisor: Qianlai Zhuang

UPCOMING MEETINGS

Tuesday, November 30

- Undergraduate Committee, CIVL 2173 (11 a.m.)

Friday, December 3

- Executive Committee, CIVL 2201 (1 p.m.)

Monday, December 6

- EAS Faculty Meeting, CIVL 3201 (11:30 a.m.)

EAS SEMINAR

Thursday, December 2, at 3:30 p.m. in CIVL 1252:
Title TBA. Greg Michalski, EAS, Purdue

Refreshments at 3 p.m. in CIVL 2201

For more information, see the EAS online [calendar](#).

THESIS DEFENSE

Monday, November 22, at 10:30 a.m. in CIVL

2201: "A Coupled Modeling and Observational Approach to Understanding Oxygen-18 in Atmospheric Nitrate." MS Defense for David Mase; Advisor: Greg Michalski

Tuesday, November 30, at 3:30 p.m. in CIVL

2201: "Design and Evaluation of an Undergraduate Laboratory Course in Atmospheric Science Research." MS Defense for Kathleen Quardokus; Advisor: Sonia Lasher-Trapp

Wednesday, December 1, at 11 a.m. in CIVL

2201: "Academic Provenance: Investigation of Pathways that Lead Students in the Geosciences." MS Defense for Heather Houlton; Advisor: Eric Riggs

Thursday, December 2, at 1:30 p.m. in CIVL 4251:

"The Characterization and Prediction of Sub-diurnal Extreme Precipitation in the Midwestern United States." PhD Defense for Nathan Hitchens; Advisor: Jeff Trapp

Friday, December 3, at 10 a.m. in CIVL 2201:

"Thesis Title: Rock Uplift, Erosion, and Tectonic Uplift of South Africa Determined with Cosmogenic ²⁶Al and ¹⁰Be." MS Defense for Erica Erlanger; Advisor: Darryl Granger

RECENT PRESENTATIONS

Gerald H. Krockover and Loran Parker (Discovery Learning Research Center), "Using Action Based Research Teams as Educational Resources for Learning at a Zoo," Eighth International Conference on the Book, November 7, 2010, University of St. Gallen, St. Gallen, Switzerland.

Sonia Lasher-Trapp was a co-presenter with Gabriella Weaver of Chemistry and Brittany Gasper of Biology at the 2010 Purdue President's Council Back-to-Class session entitled, "The CASPiE Way: Teaching Science through Real Research Experiences" on November 12th.

Jay Melosh gave the Sigma Xi Lecture on November 17 entitled, "Results from NASA's Nov. 4, 2010 flyby of Comet Hartley 2." (See J&C [article](#).)

Angel R. Torres-Valcarcel presented a seminar entitled, "The Impacts of Land Use/Land Cover Changes in Puerto Rico's Climate" on November 17 at the Pontifical Catholic University of Puerto Rico - Ponce, Ponce, Puerto Rico

Ernest Agee gave an invited talk to the Lafayette Kiwanis Club on November 18 entitled, "Principles of Climate Change and Global Warming."

Jay Melosh gave a seminar at Northwestern University on November 19 entitled, "Are we all Martians? Interplanetary exchange of meteoritic material."

MEETINGS ATTENDED

Terry West attended two technical meetings taking students along to meet with applied geologists. On November 10, they attended the combined meeting of the Indiana Geologists and the Professional Geologists of Indiana in Indianapolis. The speaker was a member of the Indiana House of Representatives who spoke about the financial challenges of Indiana. He noted that education and prisons were on the top of the list of areas likely to receive reduced funding in the year ahead. Dane Dudley, Nick Farney and Yinghui Sui accompanied Dr. West to this evening meeting. On November 16, they attended the annual meeting of the North Central Section of the Association of Environmental and Engineering Geologists (AEG) held in the Chicago suburbs. Richard Fisher accompanied Dr. West to this evening meeting. The speaker was a consulting geologists who described several case histories involving engineered wetlands regarding acid mine drainage from coal mines and sewage

treatment effluent. At the meeting it was also noted that students can now join AEG at no cost, a reduction from the usual \$25 per year. Dr. West picked up application forms that will be made available to interested students.

EAS TECHNOLOGY SUPPORT NEWS

New printers in EAS!

The EAS Computing Committee recently received approval from Jon Harbor to purchase two new printers and printer maintenance for two other existing printers from Cannon IV. The specifics of the printers and locations are as follows:

One new color printer will be purchased for CIVL 2296 replacing the existing color printer. Another new B&W printer will replace the two existing B&W printers in CIVL 3277. In addition to these new purchases, a service contract will be added to the existing HP LaserJet 9500 color printer which will be moved to CIVL 3277. Finally, a service contract will be added to the existing B&W printer in CIVL 2169.

The two new printers will have a three-year service agreement guaranteeing a four-hour business day response for service calls. We will also have four-hour business day response maintenance contracts on the two other printers, but the maintenance contracts will be managed annually. EAS will still be responsible for all consumables, including paper and toner cartridges, but all parts replacement and labor charges are covered. An annual preventive maintenance cleaning and repair is provided for each printer under contract.

These new printers and maintenance contracts on existing printers should significantly improve reliability and performance, and reduce the large number of help requests related to printing. The orders for these changes have been recently placed, so the new printers should be here and installed within the next few weeks.

"SELECT AGENT" SURVEY

As you know, legislation adopted by Congress following the 9/11/01 attacks created a category of biological agents and toxins with potential to be used as bioweapons/bioterrorism agents and named this category "Select Agents." A set of regulations designed to identify locations of and control access to these Agents was implemented with authority for enforcement assigned to the CDC and APHIS. [Read more...](#)

CHANGES IN NIH GRANT REQUIREMENTS – SUBMISSION OF PROGRESS REPORTS FOR MYF AWARDS

There has been a change in the NIH Grant policy regarding annual progress reports for multi-year funded awards. NIH announced that beginning December 22, grant awardees must submit annual progress reports for MYF awards on or before the anniversary of the budget/project start date of the award. Effective October 22, 2010, NIH began sending automated email notifications to the principal investigator two months before the anniversary of the award to request submission of the multi-year progress report (MYPR). More information can be found online in the NIH press release, [New Procedures and Instructions for Submitting Annual Progress Reports for Multi-Year Funded Awards](#).

SUMMER GEOLOGY FIELD COURSE

On June 13-24, 2010, Ken Ridgway, along with several Purdue graduate students (Ali Can Bakir, Clement Bataille, Christine Kassab, Melissa McMullen, Tenille Medley and Zachary Umperovitch) traveled throughout the Southwest studying geology and environmental issues across Indian country. [See photos and read more...](#)

NSF: UNSOLICITED PROPOSALS AT THE INTERFACE OF THE BIOLOGICAL, MATHEMATICAL AND PHYSICAL SCIENCES

Deadlines vary by division. Divisions within the Directorate for Mathematical and Physical Sciences (MPS) have seen increasing numbers of proposals in recent years that focus on biological systems at all levels of biological organization, ranging from the sub-cellular level to the environment. [Read more...](#)

GAME DAY

Steve Mason, our EAS custodian, took our EAS grad student, Yujie He, and a Biomedical Engineering grad student, Yan Li, to the Wisconsin football game along with his daughter Savannah. A great time was had by all experiencing this unique part of American culture.



[Click photo for larger view](#)

FROM OUR EAS LIBRARY

Free Books

Free duplicates; first come, first serve. Deadline: November 26. Contact Terry Wade in the EAS Library. [List of books](#)

Newest Books

Click [here](#) to see a list of new books in the EAS library in the last two weeks.

POSITIONS AVAILABLE

PhD Assistantships

Two Ph.D. graduate assistantships are available for keen and motivated students interested in research and training centered around understanding the impact of climate change on boreal forest carbon reservoirs. [Read more...](#)

Postdoctoral Research Position

A three-year postdoctoral research position is available for a keen and motivated individual interested in collaborative research and training centered around understanding the impact of climate change on boreal forest carbon reservoirs. [Read more...](#)

Laboratory Technician

A two-year research technician is available for a motivated individual interested in participating in research activities centered around understanding the impact of climate change on boreal forest carbon reservoirs. [Read more...](#)

A NOTE FROM OUR ACADEMIC COUNSELOR

Udall Scholarship Information Session

Thursday, **December 2**, in STEW 318 from 5-6 pm. The Udall Foundation (www.udall.gov) each year awards 80 scholarships of up to \$5,000 and 50 honorable mentions of \$350 to sophomore and junior level college students committed to careers related to the environment, tribal policy, or Native American health care. The application for the 2011 Udall Scholarship is now available. The campus application deadline is Friday, **January 14**, 2011. Contact Professor Leigh Raymond (lraymond@purdue.edu) or Cristy Gosney (crgosney@purdue.edu) for more information.

Exciting Opportunity in Tanzania Maymester 2011

The Tanzania study abroad program will take place in Maymester 2011. In approximately four weeks, students will earn nine credits. These courses will fulfill the College of Science requirements for a two-course general education sequence and language/culture. In addition, students will spend time in local schools, village excursions, and on safari.

Program Highlights:

- Earn 9 credits in four weeks
- 15 half-days working in local schools
- Language, history, and culture seminars
- Three exciting weekend excursions

The next callout will be on **December 6 at 6:30 p.m. in BRNG 4180**. For more information contact the program leader, Jill Newton (janewton@purdue.edu), or visit the program website at: <http://www.edci.purdue.edu/studyabroad/tanzania/>.

Paleo-DNA Training Program

The Paleo-DNA Laboratory at Lakehead University in Thunder Bay, Ontario, Canada is offering students the opportunity to participate in the annual Ancient DNA Training Program. The course runs May 9 to 27, 2011.

During this hands-on laboratory and lecture program, students are taught various extraction, purification, and amplification methodologies and provided instruction in data analysis. They will work on their own blood, buccal, and hair samples and will generate their own nuclear DNA profile, determine their own mitochondrial haplotype, and learn sex identification. Students will practice preparing samples from a number of different tissue types such as bone, teeth, hair, blood residues and mummified tissue and learn to recognize the use of genetic analysis and its potential in archaeology, forensic science, paleontology, and related sciences. Lectures by experts in the fields of archaeology, genetics, ancient DNA, forensic science, and more are integrated with the laboratory sessions. If you would like registration forms or further information, please visit www.ancientdna.com.

Surviving Finals Week

The Student Advisory Board of the Academic Success Center is excited to offer their all-campus workshop on Surviving Final Exams. Discover what successful students say about taking exams. It will be Wednesday, **December 1**, at 4:30 p.m. in LWSN B151. It is free and no reservations are needed.

Network over Breaks

Good time to let people know what you are looking for in terms of a future job, internship, etc. Tips: <https://www.cco.purdue.edu/Student/Networking.shtml>.

Get Animated

Create an animated short for Tech Week. Entries due Wednesday, **April 6**, 2011. Read the details at <http://www.tech.purdue.edu/animation/>. Win prizes, be famous, have fun.

Nancy

HAPPY BIRTHDAY!!!

Jim Ogg – November 25
Paul Shepson – November 29
Darryl Granger – December 5



NEWSLETTER SCHEDULE

Due to the Thanksgiving holiday, there will be no EAS newsletter on Monday, November 29th. The next issue is planned for Monday, December 6th.

Happy Thanksgiving!





Udall Foundation
CIVILITY, INTEGRITY, CONSENSUS

The Udall Scholarship



The Udall Foundation will award 80 scholarships in 2011 to current sophomore and junior college students pursuing careers related to the environment, tribal public policy, or Native American health care. Join us to learn more about this amazing opportunity!

Scholarship Benefits:

- Up to **\$5,000** for educational expenses
- A chance to meet other student leaders from around the country at the **Udall Scholar Orientation**
- Access to an active and growing **network of alumni** ready and willing to help with the post-undergrad transition

**Udall Scholarship Info Session:
Thursday, December 2 @ 5pm
Stewart Center 318**

For more information about the Udall Scholarship visit
www.udall.gov

Bimolecular fluorescence complementation (BiFC) Workshop

When: 9 am - 4 pm, December 7th, 2010

Where: Hall for Discovery and Learning Research (DLR), room 131; BBC 133/134

Registration Required: Luanne Ludwig at lml@purdue.edu or 42276 by Friday, December 3rd.

Morning Lectures

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|---------------|---|
| 9:00-9:45am | BiFC to image molecular interactions: Principle, experimental design and data analysis
Chang-Deng Hu, Ph.D., DLR, room 131 |
| 10:00-10:45am | Visualization of GPCR oligomerization in living cells using BiFC-based technologies
Val Watts, Ph.D., DLR, room 131 |
| 11:00-11:45am | BiFC to image protein-protein interactions in plants
Stan Gelvin / Lan-Ying Lee, Ph.D., DLR, room 131 |
| 12:00-1:00pm | Lunch (to be provide), BBC, room 221 |

Afternoon Labs

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|-------------|---|
| 1:00-3:00pm | Lab Module 1 (Lan-Ying Lee): Production and transfection of <i>Arabidopsis</i> protoplasts for BiFC BBC 133/134 |
| 3:00-4:00pm | Lab Module 2 (Chang-Deng Hu): Visualization and imaging of protein-protein interactions in living cells using BiFC, BBC 158 (Aaron runs microscope) |