UPCOMING MEETINGS

Thursday, November 17
• Undergrad Committee, CIVL 2201 (9:15 a.m.)

Monday, November 21
• Faculty Meeting, CIVL 3201 (11:30 a.m.)

EAS SEMINAR
Thursday, November 17, at 3:30 p.m. in CIVL 1252: "Evolution of Soil Mantled Hillslopes in Responses to River Incision: The Geomorphic Theater and the Geochemical Play." Kyungsoo Yoo, University of Minnesota

Refreshments at 3 p.m. in CIVL 2201
For more information, see the EAS online calendar.

UPCOMING DEFENSES

Tuesday, November 15, at 9 a.m. in CIVL 2201:
"Paleo-glaciations of the Shaluli Shan, Southeastern Tibetan Plateau." MS defense by Ping Fu; advisor: Jon Harbor.

Friday, November 18, at 8 a.m. in CIVL 2201:
"Spectroscopy, Mineralogy, and Morphology of a Jarosite-Bearing Landmark Butte within the Jurassic Navajo Sandstone." PhD defense by Julianne Bell; advisors: Brenda Bowen.

RECENT PRESENTATIONS

Larry and Sheryl Braile conducted two workshops for teachers at the California Science Teachers Association annual meeting in Pasadena, California, October 20-23, 2011. The workshop titles were: Earthquakes - A Workshop for Teachers (2 1/2 hour presentation), and, Journey to the Center of the Earth (one hour presentation).


On November 4, Professor Baldwin gave a seminar at the Aviation Weather Center in Kansas City, Missouri as part of their winter-time forecaster training related to aircraft icing. The AWC is one of the National Centers for Environmental Prediction, a part of the National Weather Service that provides guidance related to weather hazards for both domestic and international flights.

On November 4th Lucy Flesch gave a talk at Central Washington University entitled, "Integration of Plate Boundary Observatory and USArray Data to Quantify the Forces Driving Deformation in the Western United States" as the EarthScope science speaker.

Terry West participated in the program for the “200 Year Celebration of the Battle of Tippecanoe” on November 5th and 6th, 2011 at the Battlefield site. He provided a lecture entitled “Local Terrain, Geologic Features and Site Conditions at the Battle of Tippecanoe, November 1811”. A full capacity of about 80 people attended on Saturday and Sunday in the Chapel located at the Battleground facility. The three-day activity, Saturday through Monday, held also at the Prophetstown Park Museum was attended by hundreds of individuals including military enactors and Native Americans.

Larry Braile made a presentation, “The 1811-1812 New Madrid Earthquakes”, at the Battle of Tippecanoe event held in Battle Ground, Indiana, November 5-7, 2011.

Prof. Brenda B. Bowen participated in the Midwest Carbon Sequestration Science Conference in Champaign, Illinois November 7-9. This meeting coincided with the initiation of injection of anthropogenic CO2 into the Mount Simon Sandstone at the Illinois Basin Decatur Project (see http://sequestration.org for more information), a project that Brenda and her students have been contributing to since 2008. She presented an update on their collaborative work with the Indiana Geological Survey at the meeting entitled: “Petrological Assessment of the Mt. Simon Sandstone and Eau Claire Formation” by Brenda B. Bowen, Thomas Lovell, Ryan Neufelder, Raul Ochoa, Nick Fischietto, Nathan Wilkens, Brenton Chentinik, John Shuffletbarger, John Rupp, Cristian Median, Richard Lahann, and Jim Brophy.
From November 7-11, Professor Baldwin visited the WRF Developmental Testbed Center in Boulder, Colorado. He presented a seminar to the DTC on November 8 on the topic of Field Significance for Spatial Forecast Evaluation, along with Kim Elmore from the University of Oklahoma/CIMMS. Prof. Baldwin and Dr. Elmore worked with the DTC research staff to incorporate a procedure for determining field significance of bias errors into the Model Evaluation Tools (MET), a widely-used toolkit used by WRF model developers and users for forecast verification.

Nievita Bueno Watts was invited to present a webinar to the U.S. Geological Survey Core Science Systems Mission Area Senior Leadership Team on November 9th. The presentation, entitled “It's a pathway, NOT a pipeline”, opened a dialogue between Purdue University and the USGS concerning the recruitment of Native American students into geoscience professions. Jon Harbor and Ken Ridgway also joined the discussion, as did members of the USGS Office of Scientific Quality and Integrity.

INTERNATIONAL FACULTY, STAFF AND STUDENTS TRAVELING ABROAD

As we approach the holiday season there will be many international faculty, staff and students who are traveling abroad. It is important that they check with ISS before traveling to ensure that they have the proper documents for reentry into the US from their time abroad.

F-1 students and J-1 scholars may come into ISS during walk-in times to have their documents signed. They should bring their passport, I-94 card, I-20 or DS-2019 with them when they come. Walk-in times are 9:00-11:30 and 1:30-4:00 every day except Thursday morning.

H-1B visa holders should contact Jennifer Linvill (jlinvill@purdue.edu) or Sharon Winslow (swinslow@purdue.edu) by email to request their documents for traveling abroad.

FACULTY FELLOWSHIPS FOR STUDY IN A SECOND DISCIPLINE

This year's deadline for Faculty Fellowships for Study in a Second Discipline is December 9, 2011. These awards offer faculty members an opportunity to extend their scholarship through study in a new but related discipline or area of study. This program was established to promote interdisciplinary teaching and research. Those interested are encouraged to apply by completing an application which can be found at https://sp2010.itap.purdue.edu/provost/fssd/default.aspx. Awards will be made for one semester or an academic year beginning August 2012 or January 2013. If you have any questions, please contact Vice Provost Beverly Davenport Sypher (bdsypher@purdue.edu).

NEW NSF PROGRAM

The Division of Atmospheric and Geospace Sciences at the National Science Foundation would like to bring to your attention a pilot grant mechanism, Creative Research Awards for Transformative Interdisciplinary Ventures (CREATIV).

The goal of CREATIV is to support bold, interdisciplinary projects in all NSF-supported areas of science, engineering, and education research.

To learn more about CREATIV, please refer to http://www.nsf.gov/pubs/2012/nsf12011/nsf12011.jsp

CAREER OPPORTUNITIES AT UM

The University of Michigan, Department of Earth and Environmental Sciences, has career opportunities for faculty and postdoctoral fellows.
AGI ACCEPTING APPLICATIONS FOR THE 2012-2013 WILLIAM L. FISHER CONGRESSIONAL GEOSCIENCE FELLOWSHIP

If you are passionate about the role geoscience plays in the federal legislative process, consider applying for the American Geosciences Institute’s William L. Fisher Congressional Geoscience Fellowship for 2012-2013. Successful applicants will have the opportunity to spend a year on Capitol Hill working in a congressional office and learning about the legislative process. Read more...

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A NOTE FROM OUR ACADEMIC COUNSELOR

NASA Planetary Geology & Geophysics Undergraduate Research Program (PGGURP)

Currently enrolled undergraduates, and those who will or have completed their degree but are not yet enrolled in graduate school, are eligible to apply for this eight-week summer NASA funded research. Applications are due January 30, 2012; information can be found at http://www.acsu.buffalo.edu/~tgregg/pggurp_homepage.html.

Science Education Programs at Oak Ridge National Laboratory

The Science Education Programs at Oak Ridge National Laboratory provides paid opportunities for undergraduates, grad students, recent graduates, and faculty to participate in high-quality research to solve real-world problems. Opportunities are available for internships and co-ops, research appointments, and sabbaticals. All opportunities are limited to scientific, technical, engineering, or mathematical fields.

You can access all available opportunities through the website of http://www.orau.org/ornl. This will take you to the profile based application system where you can apply for numerous programs after you complete your profile. The Talent and Opportunity System allows you to create a profile, and then for each program or job posting that you apply for, you only answer five or six questions.

All levels of participants are encouraged to publish research papers with their mentors. Please browse through the Research Profiles on the different participants and their research experiences at the right-hand side of the bottom of the web site listed above. Also, there is a featured two-minute video of research participants at ORNL sharing their experiences. You can find it on YouTube at http://ow.ly/2EQLz.

Research Internships in Science and Engineering (RISE)

RISE is a summer internship program for undergraduate students from the United States, Canada and the UK in the fields of biology, chemistry, physics, earth sciences and engineering. It offers unique opportunities for undergraduate students to work with research groups at universities and top research institutions across Germany for a period of two to three months during the summer. RISE interns are matched with doctoral students whom they assist and who serve as their mentors. The working language will be English. All scholarship holders receive stipends from the DAAD to help cover living expenses, while partner universities and research institutes provide housing assistance.

RISE hopes to accept as many students as possible for a summer internship in Germany. However, this is a scholarship program, and there are only limited funds available. In 2012 they hope to have 300 interns. The online database for applicants will open on December 6th, 2011. http://www.daad.de/rise/en/index.html

(Note: The RISE reader "Young Scientists Go German" offers insights into RISE participants’ personal and professional experiences during their internship and after their academic stay in Germany.)

Air & Waste Management Association Scholarships and Poster Competition

The A&WMA is offering scholarships and awards for those pursuing air quality, environmental policy, and related careers. The flyers at the end of this Newsletter provide more information and links to the applications. The poster competition abstracts are due December 5, 2011; scholarships are due January 6, 2012.

Study Abroad Opportunities

Interest in study abroad opportunities in the Middle East or that involve Arabic language training are on the rise, both nationally and at Purdue. Programs currently available to our students:

Purdue partners with the University of Minnesota to officially co-sponsor their semester program in Fez, Morocco.

MOROCCO:

Here is the link for the semester & summer programs in Morocco:
Supplemental Instruction (SI)

SI will be available again in the spring semester, and the schedule of classes also has a note by each of these courses for which SI study sessions will be offered.

SI is a way to understand the course material and is a way to gain study tips that will carry over into other courses. The sessions are very informal and led by a peer who has done well in the course. Students should bring their textbooks, notes and questions to the study sessions. The current weekly session schedule and the courses can be found at [www.purdue.edu/si](http://www.purdue.edu/si).

Nancy

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**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/](http://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.

For answers to common technology questions and the latest updates from the EAS Technology Support staff, please visit [http://www.purdue.edu/eas/info_tech/index.php](http://www.purdue.edu/eas/info_tech/index.php).

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](http://calendar.science.purdue.edu/eas/seminars).
The Recent National Academy of Sciences Study on the Economic and Environmental Impacts of Biofuel Policy

Wallace E. Tyner
James and Lois Ackerman Professor
and Co-chair of the NAS Committee

12:00 – 1:00pm
Friday, November 18
Dean’s Auditorium, Pfendler Hall

Abstract: In October 2011, the National Research Council of the National Academy of Sciences released their study entitled, Renewable Fuel Standard: Potential Economic and Environmental Effects of U.S. Biofuel Policy. Professor Tyner will provide a summary of the major findings of this study. Perhaps the most controversial finding was that the U.S. is unlikely to meet the Renewable Fuel Standard (RFS) for 2022 for cellulosic biofuels. Wally will provide a description of the data and analysis underlying this conclusion. Another controversial finding was that the RFS may not be an effective way to reduce GHG emissions. The background for this finding will be reviewed as well. In addition, he will review the committee’s assessment of impacts on food and feed prices, land values, government budget, environmental impacts, and other areas. There will be ample time for questions and comments.

The Report: The report is available online as a free pdf (registration required). This Purdue news story provides more information about the study and its release in Washington DC last month.

Bio: Professor Tyner is an energy economist and James and Lois Ackerman Professor of Agricultural Economics, Purdue University. He received his B.S. degree in chemistry (1966) from Texas Christian University, and his M.A. (1972) and Ph.D. (1977) degrees in economics from the University of Maryland. His current research focuses on renewable energy policy issues and climate change. In 5 of the past 7 years, his students have received the department’s outstanding thesis award. In June 2007, Senator Richard G. Lugar of Indiana named Tyner an “Energy Patriot” for his work on energy policy analysis. In 2009 he received the Purdue College of Agriculture Outstanding Graduate Educator award and was part of a group that received the College Team award for multidisciplinary research on biofuels. He served as co-chair of the National Academy of Sciences committee on the economic and environmental impacts of biofuels.
ATTENTION UNDERGRADS!

Want to get Published?

Doing Research?

Writing Winning Proposals

A callout and abstract-writing workshop

for anyone interested in submitting an article proposal for The Journal of Purdue Undergraduate Research (JPUR). Learn about JPUR, the submission process, and the benefits of publishing your research. Have you been thinking about submitting, are just getting started, or want some feedback on your draft? Get practical tips, receive one-on-one consultation, and leave with a draft in hand.

Tuesday, November 29
5:30 - 10:30 pm
HIS B848

FREE PIZZA & SODA!
Please join us for the 4th annual Purdue Reception at the Thirsty Bear Restaurant. Come renew old acquaintances, make some new ones, and let’s toast Paul Shepson, Purdue’s newly elected AGU Fellow.

Date: Wednesday, December 7, 2011
Time: 7:00 p.m. - 9:00 p.m.
Place: Thirsty Bear Restaurant
661 Howard Street, San Francisco, CA

This event is co-sponsored by the Department of Earth & Atmospheric Sciences and the Purdue Climate Change Research Center. For more information, contact Rose Filley (rfilley@purdue.edu; 765-479-7540).
Calling All Students...Don't Miss Out Scholarships, Poster Competition and Awards!

A&WMA recognizes outstanding students who are pursuing courses of study and research leading to careers in air quality, waste management, and environmental policy, law or sustainability related to air pollution and waste. This includes student scholarships, thesis/dissertation awards, awards for best student papers and posters, and prizes for our environmental challenge competition. Winners of all awards will be highlighted in the Association’s EM magazine. Awards will be presented at the student awards ceremony during the Annual Conference & Exhibition.
**Student Poster Competition**: DEADLINE EXTENSION: Abstracts are now due by Monday, December 5, 2011

The Student Poster Awards recognizes student posters to be the best amongst those considered in the undergraduate, masters, and doctoral categories. Full-time Undergraduate, Graduate and Doctoral students are encouraged to participate in the Air & Waste Management Association’s Student Poster Competition during its Annual Conference & Exhibition. Students must be the primary author of the abstract associated with the poster. They must present the poster during the annual conference to be eligible for this competition.

[Click here for more information on A&WMA’s Student Poster Competition](#)

**Environmental Challenge International (ECi)**

The ECi is a team competition in which students at all levels - undergraduates and Master's and Ph.D. candidates - present a solution to an environmental challenge based on the experiences of our members. In responding to the challenge, entrants must consider regulatory approaches, political and community issues, and technical and scientific solutions. The ECi showcases students' abilities while enhancing their professional experience - allowing them to catch the eye of some of the most influential leaders in the industry. In addition to developing professional contacts and potential mentors, student teams are eligible to win cash prizes.

Scholarships: Completed applications are due by Friday, January 6, 2012

Each year, the Air & Waste Management Association (A&WMA) awards scholarships to outstanding, full-time graduate students who are pursuing courses of study and research leading to careers in these areas:

- Air Quality
- Waste Management
- Environmental Management
- Policy
- Law
- Sustainability

Click here for more information on A&WMA's Scholarships

Master Theses and Doctoral Dissertation Awards: Nominations are due by January 16, 2012

In addition to scholarships, A&WMA acknowledges up to two exceptional masters theses and up to two exceptional doctoral dissertations each year. Nominations shall be made by the student's faculty advisors, who are members of A&WMA, only. Works nominated shall be original work that makes an unusually significant contribution to the fields of:

- Air Quality
- All Types of Waste
- Sustainability/Management Pertaining to Air Quality or Waste

Click here for more information on A&WMA's Master Theses and Doctoral Dissertation Awards