

June 6, 2011

WELCOME TO NEW EAS EMPLOYEES

Dr. Suzanne Zurn-Birkhimer

Assistant Department Head

Dr. Suzanne Zurn-Birkhimer will rejoin EAS as Assistant Department Head, effective June 13th. Suzanne's current role is as Deputy Director of the Center for Faculty Success which is funded by the NSF ADVANCE grant. She received a B.S. in Mathematics from the University of Minnesota and worked in accounting and office management for several years before returning to graduate school where she earned M.S. and Ph.D. in Atmospheric Science from our Department. A published scientist, award-winning teacher and associate member of the Purdue Teaching Academy, Suzanne has held positions as an Assistant Professor of Environmental Science at St. Joseph's College, and was the Assistant Department Head of EAS before moving to become Associate Director of Women in Engineering at Purdue. In addition to her administrative, leadership and teaching skills, Suzanne's current research focuses on developing programs to enhance the recruitment and retention of underrepresented groups to the STEM disciplines, and she currently serves as PI of a program that develops and supports Native American students who are interested in pursuing graduate degrees in the STEM disciplines.

Suzanne and her husband Paul, an Academic Advisor in First Year Engineering, have lived in West Lafayette for 14 years. They have two sons – Nick, 15, and Jack, 10.

Patty Rigdon

Account Clerk

Patty comes to EAS from Purdue's Computer Science Department, where she worked for two years. Her duties there included handling grant account management, payroll, accounts payable, purchasing and travel.

Prior to joining Purdue, Patty worked in retail management, most recently for Talbots in West Lafayette and L.S. Ayres (now Macy's) in Lafayette. Patty, a native of Lafayette, lives in Brookston with her husband Mickey and two children, Blake and Mickaela.

Katie Levitt

Account Clerk

Before joining the EAS business office, I was employed at IUPUI in the Bursar Office. While at IUPUI, I was also the office coordinator for the United Way and IMPACT. Prior to that, I spent over 10 years in the banking industry. My husband and I are renovating our home in Crawfordsville, which is a work in progress. We have two sons (Dalton 18, Dylan 15). I love spending time with family and friends. My favorite hobby is baking. Yes, I will be bringing in samples for everyone from time to time.

Megan Sapp Nelson

Associate Professor of Library Science

Hello. Thank you for the warm welcome I have received thus far. I am very pleased to be joining EAS as liaison from EAS to the Purdue University Libraries. I'm an Associate Professor of Library Sciences, and have been working in the Purdue Engineering Library for the past 6 years. I received my Bachelors and MLS degrees from the University of Illinois, Urbana-Champaign. As a professor of Library Science, I work with professors to implement information literacy skills across the curriculum in a variety of ways. As a researcher, my focus is on the data skills used and needed by scientists and engineers to manage their data sets, and the most effective ways to transfer those skills, particularly to graduate students. I look forward to collaborating with EAS faculty and students. My office is in 2115B in the EAS library. Please stop by.

TEACHING HONOR ROLL

Many of our faculty colleagues have made the department's Teaching Honor Roll for the 2011 Spring semester (based on student evaluation instructor ratings) as noted below. Congratulations!

Service Courses (=> 4.0)

| | | |
|---------------------|------------------|-----|
| Jerry Krockover | EAS 102 (sec. 5) | 4.2 |
| Jerry Krockover | EAS 102 (sec. 6) | 4.4 |
| Brenda Bowen | EAS 104 | 4.4 |
| Gabe Bowen | EAS 106* | 4.6 |
| Andy Freed | EAS 106* | 4.6 |
| Terry West | EAS 112 | 4.1 |
| William Zinsmeister | EAS 375 | 4.2 |

Undergraduate/Graduate Courses (=> 4.5)

| | | |
|--------------------|-------------------------------|-----|
| Gabe Bowen | EAS 118 | 4.9 |
| Terry West | EAS 385 | 5.0 |
| Mike Baldwin | EAS 434 | 4.9 |
| Ken Ridgway | EAS 590 | 4.9 |
| John Cushman | EAS 591 (Stoch ODEs...) | 4.8 |
| Ken Ridgway | EAS 591 (Detrital...) | 4.5 |
| Darryl Granger | EAS 591 (Dating Methods...) | 4.8 |
| Tim Filley | EAS 591* (Soil Biogeochem...) | 4.6 |
| Jeff Trapp | EAS 591 (Meso Conv...) | 4.8 |
| Phil Smith | EAS 591 (Mid Latitude...) | 4.5 |
| Andy Freed | EAS 591 (Writing Prop...) | 4.9 |
| Matt Huber | EAS 591 (Writing Prop...) | 4.7 |
| Ken Ridgway | EAS 591 (Integrated...) | 5.0 |
| Sonia Lasher-Trapp | EAS 631 | 4.6 |
| Harshvardhan | EAS 638 | 4.5 |
| Darryl Granger | EAS 691 (Dept. seminar) | 4.5 |
| Jay Melosh | PHYS 570 | 5.0 |

*Course was co-taught

The following TAs have made the Teaching Honor Roll for the 2011 Spring semester by achieving a score of 4.5 or higher as rated by their students. Congratulations!

| | | |
|-----------------------|-------------------|-----|
| Nahyr Rovira-Figueroa | EAS 102 (sec. 3) | 4.5 |
| Nahyr Rovira-Figueroa | EAS 102 (sec. 4) | 4.8 |
| Bridget Miller | EAS 102 (sec. 1) | 4.6 |
| Bridget Miller | EAS 102 (sec. 2) | 4.9 |
| Justin Pflug | EAS 111 (sec. 4) | 4.9 |
| Joe Dixon | EAS 111 (sec. 5) | 4.6 |
| Kristen Werling | EAS 111 (sec. 7) | 4.5 |
| Melissa McMullen | EAS 111 (sec. 8) | 4.6 |
| Kandace Kiefer | EAS 111 (sec. 10) | 4.8 |
| Nick Farny | EAS 112 lab | 4.5 |
| Brenton Chentnik | EAS 118 lab | 4.7 |
| Jessica Gebhard | EAS 230 (sec. 2) | 5.0 |
| Christine Kassab | EAS 312 (sec. 4) | 4.5 |
| Soyoung Choi | EAS 312 (sec. 6) | 4.6 |
| Kimberly Hoogewing | EAS 434 lab | 4.7 |
| Nick Farny | EAS 474 lab | 4.8 |

FRANCISCO RECEIVES HONORARY DOCTORATE FROM UNIVERSITY OF ARKANSAS

Joseph Francisco, associate dean of graduate education and international programs for the College of Science, received an honorary doctorate of science at the University of Arkansas at Little Rock's spring commencement on May 21. Francisco, the William E. Moore Distinguished Professor of Physical Chemistry, was the 2010 president of the American Chemical Society.



CLAIRE P. HOLDREDGE AWARD

Terry R. West was awarded the Claire P. Holdredge Award for his textbook, *Geology Applied to Engineering*. This award is presented for a publication by an AEG Member within the five previous years that is adjudged to be an outstanding contribution to the Engineering Geology Profession. The award will be presented at the Annual Banquet on September 22 at the AEG 2011 Annual Meeting in Anchorage, Alaska.

GSA FELLOW

Darryl Granger has been elected a Fellow in the Geological Society of America. A member of the GSA is elected to Fellowship in recognition of distinguished contributions to the geosciences. A nominee for Fellowship shall have had at least eight years of professional experience in geology or related fields.

THE WASHINGTON POST INTERVIEW

Ernie Agee was interviewed by Science Reporter, Brian Vastag, of *The Washington Post* regarding the recent outbreak of deadly tornadoes. Dr. Agee's contribution was included in the article that appeared on the front page of *The Washington Post*, 24 May 2011. [Read more...](#)

2011-12 PRF INTERNATIONAL TRAVEL GRANTS

Gabe and Brenda Bowen have both been awarded a 2011-12 Purdue Research Foundation (PRF) International Travel Grant for participation in the "Goldschmidt 2011" conference in Prague, Czech Republic, August 14-19, 2011.

OUR RECENT PUBLICATIONS

Bowen, B. B., R. I. Ochoa, N. D. Wilkens, J. Brophy, T.R. Lovell, N. Fischietto, C. R. Medina, and J. A. Rupp, 2011: Depositional and diagenetic variability within the Cambrian Mount Simon Sandstone: Implications for carbon dioxide sequestration. *Environmental Geosciences*, **18**, 69-89.

Patrick Brennan recently had a paper published in *Geochemistry Geophysics Geosystems* that was among the 'Most Popular' papers on the journal's website: www.agu.org/journals/gc:

Brennan, P. R. K., H. Gilbert, and K. D. Ridgway, 2011: Crustal structure across the central Alaska Range: Anatomy of a Mesozoic collisional zone, *Geochem. Geophys. Geosyst.*, **12**, Q04010, doi:10.1029/2011GC003519.

Collins, G. S., H. J. Melosh, and K. Wünnemann, 2011: Improvements to the epsilon-alpha porous compaction model for simulating impacts into high-porosity solar system objects. *International Journal of Impact Engineering*, **38**, 434-439.

Creamer, C. A., T. R. Filley, T. W. Boutton, S. Oleynik, I. B. Kantola, 2011: Controls on soil carbon accumulation during woody plant encroachment: Evidence from physical fractionation, soil respiration, and $\delta^{13}\text{C}$ of respired CO_2 . *Soil Biology and Biochemistry*, doi:10.1016/j.soilbio.2011.04.013.

Hossain F., D. Niyogi, J. Adegoke, G. Kallos, and R. A. Pielke Sr., 2011: Making Sense of the Water Resources That Will Be Available for Future Use, *Eos*, **90**, 144-145.

Kennedy C. D., G. J. Bowen, and J. R. Ehleringer 2011: Temporal variation of oxygen isotope ratios ($\delta^{18}\text{O}$) in drinking water: Implications for specifying location of origin with human scalp hair. *Forensic Science International*, **208**, 156-166. doi:10.1016/j.forsciint.2010.11.021.

Nowack, R. L., 2011: Dynamically Focused Gaussian Beams for Seismic Imaging. *Int. J. of Geophys.*, Vol. 2011, Art. ID 316581, doi:10.1155/2011/316581.

RECENT PRESENTATIONS

Murphy, B., J. S. Haase, P. Muradyan, A. V. Johnson, F. Xie, and J. L. Garrison (2011), The Use of Airborne GPS radio occultation in the Pre-Depression Investigation of Cloud-systems in the Tropics (PREDICT) experiment, paper presented at Fifth FORMOSAT-3 / COSMIC Data Users Workshop and International Conference on GPS Radio Occultation, Taipei, Taiwan, 13-15 April 2011.

Haase, J. S., Y. S. Choi, R. L. Nowack, and T. Bowling (2011), Comprehensive hazard analysis for Evansville, Indiana, including probabilistic and scenario ground motion and liquefaction hazard estimation, paper presented at Seismological Society of America 2011 Annual Meeting, Memphis, Tennessee, USA, 13-15 April 2011.

Upon invitation by the Chinese Academy of Sciences, the Chinese Academy of Meteorological Sciences, Peking University, and Henan Academy of Sciences, Prof. Qianlai Zhuang visited these institutions during the period of April 17 - May 3, 2011. During the visit, Prof. Zhuang presented a series of seminars in the field of climate change and global carbon cycling. The visit helps plan the

further research collaborations with these institutions:

Seminar 1: Analysis of carbon balance on the Tibetan Plateau during the 20th century, Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China, April 22, 2011.

Seminar 2: Climate Change and Global Carbon Cycling, Henan Academy of Sciences, Zhengzhou, China, April 25, 2011

Seminar 3: Dynamics of Land use and land cover change and biogeochemistry in Northern Eurasia, Institute of Botany, Chinese Academy of Sciences, Beijing, China, April 29, 2011.

Elifuraha Saria, a PhD student working with Prof. Eric Calais, gave two presentations during the week of May 2 in Addis Ababa Ethiopia for the United Nation Development Commission for Africa (UNECA). The title of the presentation: "Velocity fields for Africa from different analysis models of GPS solution and from combined with DORIS solutions: Contribution to AFREF." [See abstract...](#)

Angel Torres, EAS PhD candidate, offered a workshop conference invited by the US Green Building Council - Caribbean Chapter, about school sustainability initiatives and community relations through the "Sustainable Schools Program." The conference was offered on May 9 in San Juan, Puerto Rico.

Harshvardhan gave a talk on aerosols at the Lawrence Berkeley Laboratories, Berkeley, California, on May 16 and another on radiation parameterizations at the Naval Research Laboratories, Monterey, California, on May 18.

The poster presented by Melissa McMullen titled "Coupling, detaching and sinking: How stages of Farallon subduction influenced topography of the 410-km discontinuity beneath North America" at the 2011 EarthScope National Meeting earned 3rd place in the student poster competition. The national meeting was held May 17-20 in Austin, Texas.

Terry West attended the Indiana Water Resources Association (IWRA) on June 1 and 2 at Ball State University, Muncie, Indiana where he presented a paper titled, "Concern for Groundwater Protection along the Wabash River Greenway, Urban and Rural Segments, Tippecanoe County, Indiana." Over 100 scientists and engineers attended, individuals working on water related projects. Dr Yinghui Sui and Richard Fisher from EAS attended the conference with Dr. West. A discussion and visit to the Geothermal Field at Ball State was a highlight of the conference. Multiple groundwater wells 400

feet deep and 15 feet on centers will provide all the heating and cooling needs of the University, replacing their coal fired boilers. Overall cost will be \$84 million with the first portion of the project coming on line this summer.

MEETINGS/COURSES ATTENDED

Terry West attended a short course on Remediation of Contaminated Sites hosted by the American Institute of Professional Geologists (AIPG) in Lexington, Kentucky on April 19, 2011. Over 100 professional geologists that work on environmental projects attended the conference that included a field demonstration on remedial techniques used for mitigation of sites contaminated by organics, heavy metals or radiologic materials. The course was taught by professional geologists and manufacturing representatives with extensive experience in the subsurface contamination and mitigation.

Terry West attended the Executive Council meeting of the Indiana Society of Mining and Reclamation (ISMR) in Jasonville, Indiana on May 10, 2011. Planning for the annual coal mining and reclamation conference in December 2011, held in Jasper, Indiana was accomplished.

Terry West attended the Indiana Geologists meeting on May 18, 2011 in Indianapolis along with Dr Yinghui Sui, recent Ph.D. graduate of the EAS Department. Dr. Pat Munson, archeologist from Indiana University, gave the program on age dating of sand boils along the Wabash River floodplain caused by earthquakes within the Wabash River Fault Zone. Dates of 6,000, 12,000 and 17,000 years ago are suggested with a return interval of about 6000 years. Estimates are that a minimum 6.5 Richter magnitude is required to produce such sand boils. Publications by Steve Obermeier, retired geologist from the U.S.G.S., and a Ph.D. graduate from Purdue in engineering geology in about 1970, were quoted in the discussion.

Terry West attended the North Central Section of the Association of Environmental and Engineering Geologists (AEG), in Chicago on May 18, 2011 along with Richard Fisher and Josh Lopez, EAS students. Dr. Christopher Stohr, engineering geologist with the Illinois State Geological Survey gave a presentation on his work in Cairo, Egypt involving remote sensing and terrain analysis. Dr. Stohr received a Master of Science degree in remote sensing and engineering geology from Purdue before completing his Ph.D. at the University of Illinois. Dr. West served as his major professor on his work at the Laboratory for Applied Remote Sensing (LARS) in 1974.

FROM OUR EAS LIBRARY

New Database: Proquest Research Library

Last January, the new database, ProQuest Research Library, was turned on. Basically an aggregate search engine, it covers several subject areas, making a search more like a Google search. I highly recommend it.

A quote from their homepage:

ProQuest Research Library provides one-stop access to more than 4,000 periodicals from one of the broadest, most inclusive general reference databases ProQuest has to offer. Search from a highly-respected, diversified mix of scholarly journals, trade publications, and magazines covering over 150 academic disciplines.

You have access to:

- ProQuest Research Library: Business
- ProQuest Research Library: Health & Medicine
- ProQuest Research Library: History
- ProQuest Research Library: Literature & Language
- ProQuest Research Library: Science & Technology
- ProQuest Research Library: Social Sciences
- ProQuest Research Library: The Arts

The next time you need to search GeoRef or MGA, try this database instead. I guarantee you will get more hits. Hotlink available on the EAS Library homepage or by searching under the DATABASES tab on the Libraries homepage. If you have any questions, feel free to stop by or call any library and speak to one of the full time staff.

Print Journals vs. Study Space

The EAS Library staff is in the process of transferring several print journals to Chemistry Library Repository (CHEM-R). If the title is available in electronic format, then the print volumes are being shifted to CHEM-R. Should you need to use a print volume, please notify the EAS Library staff and they will retrieve a volume within a four-hour turnaround time (with the exception of evenings, weekends, and holidays).

The goal of this shift is to free up shelf space in compact storage area, shift the monographs to those shelves, then remove most, if not all of the free standing shelves where the monographs currently reside. The plans are to fill that space with study tables and chairs. So, please forgive us for the temporary mess, but in the end, it will make better use of our limited space.

FAREWELL FROM CAROLYN

May 17, 2011

First of all, I want to thank you all for the terrific retirement party May 6, a memory I will always treasure. Also, I wish to thank you for the wonderful gifts! And thanks to all who worked to put it together. What a blast!

May 31 will be my final day as a Purdue Librarian. With mixed emotions, I prepare for departure and for a new chapter in my life, being open to whatever God has in store. Tying up loose ends of undone projects consumes my time before Megan Sapp Nelson settles into Room 2215B, CIVL, my office, which will become HER office on June 1. I know you will all make her feel welcome.

Boxing up photos posted on my office bulletin board, and many other personal items, will be delayed until the last moment as they represent too many treasured memories to count. Framed cat pictures will come off the walls and office door, preparing the way for a new occupant. Two-thirds of my life has been spent on this campus, all the while making amazing friends and relationships with co-workers, staff, faculty and students, friendships that will last a lifetime. Saying thank you seems so inadequate. There are no words to express how appreciative I am of all of you! So I am going to leave it at that. (Don't make me cry.)

What do I plan to do with my extra time? Sleep-in, sit in the sun in my hammock swing and read, talk to my daughter on Skype, and perhaps take an Alaskan cruise.

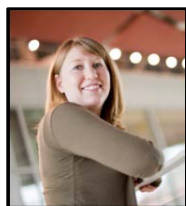
So I am not really saying goodbye to all of you, as I will continue to live in my home in West Lafayette and my Purdue email will remain active. My home phone still works and I am learning to text on my cell (yes, you can teach an old dog new tricks). So, feel free to contact me and let's do lunch!

Love to you all!

Carolyn J. Laffoon

Soon-to-be-former EAS and Physics Librarian

ASF AWARD WINNER



Kandace Kiefer is a recipient of The Astronaut Scholarship Foundation's (ASF) award, which is for outstanding students who exhibit motivation, imagination, and exceptional performance in the science or engineering field of

their major. [Read more...](#)

EGU OUTSTANDING STUDENT POSTER AWARD

The European Geosciences Union (EGU) Geodesy Division awarded EAS graduate student, Elifuraha Saria, an EGU Outstanding Student Poster award for his poster presentation: "A new velocity field for Africa from combined GPS and DORIS solutions: Contribution to AFREF." A certificate will be presented with the citation as part of the Geodesy Division business meeting during the EGU General Assembly 2012.

PURDUE NAILS RUBE GOLDBERG WORLD RECORD

Team captain and geology graduate student, Zach Umperovitch, along with his team of fellow Purdue students have snagged a Guinness World Record and could be on the heels of making another. [Read more...](#)

A FEW OF OUR GRADUATES



This photo was taken at NASA Goddard Space Flight Center when Harshvardhan visited the week of May 2. From left to right: Michael Wilson (MS 2006; Harsh), Harshvardhan, Richard Cullather (MS 1993; Harsh), Kevin Vermeesch (MS 2007; Agee) and Mariya Petrenko (PhD 2011 expected; Harsh).

PURDUE T-SHIRT IN SPACE

Purdue College of Science alumnus Drew Feustel is seen inside the space shuttle Endeavour, which began a 16-day mission to the International



Space Station on May 16. This is the 134th shuttle mission and the second to last before NASA retires the 30-year-old program. Feustel earned two degrees from the College of Science: A bachelor's degree in solid earth sciences in 1989 and a master's degree in geophysics in 1991.

**JUNE SYMPOSIUM TO FOCUS ON
NEW WAYS TO UNDERSTAND AND
RESPOND TO DROUGHTS**

A symposium on data-driven approaches for characterizing, understanding, modeling and responding to droughts will be held June 21-22 on Purdue's West Lafayette campus. The event will include speakers from a variety of scientific and technological domains, industry, other national data-driven projects and international research institutions. **The registration deadline is June 14.** Register at <http://drinet.hubzero.org/symposiuminfo>.

**REGISTRATION IS NOW OPEN FOR THE
MULTIMODAL NONLINEAR OPTICAL
MICROSCOPY WORKSHOP**

July 14-16, 2011

**Weldon School of Biomedical Engineering,
Purdue University**

This will be the first workshop that various modalities of nonlinear optical microscopy are introduced in a one-day symposium and practiced on state-of-the-art microscopes. [Read more...](#)

HAPPY BIRTHDAY!!!

Hersh Gilbert – June 16
Jennifer Haase – June 18
Jay Melosh – June 23
Indrajeet Chaubey – July 1



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.**

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.

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>.

