A Note From the Department Head

Greetings. I am proud to present the newest addition of our Alumni Newsletter, Inside EAPS. In this newsletter, you will find all of the exciting developments that have been happening within the department over the past semester. Of these developments, I am most excited about the Black and Golden Jubilee that will celebrate the department’s 50th anniversary.

Any department is only as successful as its students and alumni. In my every interaction with our alumni, I am reminded about the tremendous impact they are making in their professional fields and on our society. We would like to take this opportunity to look back and celebrate the success of EAPS alumni and friends. It will also be a celebration our faculty, past and present who have made educating our future leaders a priority and have been instrumental in providing a solid educational foundation to them. To celebrate EAPS impacts on science, society, and our students, we would like to invite you back to campus in September 2017 to celebrate the department’s 50th anniversary with us. Our faculty, past and present, will join us in the celebration. We will host events such as a formal gala and dinner, a golf outing, department tours, and a tailgate party for the 2017 Homecoming Football Game. This is our way of thanking you for the many ways you give back to us and make the continued excellence of the department a reality.

We also hope you can join us for a reception at the American Geophysical Union meeting in San Francisco. It will take place at The ThirstyBear Restaurant on Thursday, December 15, from 7-9 P.M.

Hail Purdue!

Best,

Indrajeeet Chaubey
Professor and Head
Congratulations to Our 2016 EAPS Outstanding Alumni Awardees

In September, the Department of Earth, Atmospheric, and Planetary Sciences honored three of its alumni for their outstanding achievements.

The Outstanding Alumni Award is given annually to alumni who have been successful in their career paths and made impactful contributions in their chosen fields. This year’s recipients were Drs. John McGinnis, Martin Doyle, and Jiin-Shuh Jean.

The breadth of experiences between the three awardees demonstrates the diversity of an EAPS education. Dr. Jean is a distinguished professor at the National Cheng Kung University in Taiwan, and focuses on medical geology in order to solve epidemic problems. Dr. Doyle, a professor at Duke University, has been serving as the Senior Conservation Finance Fellow at the Department of the Interior’s newly created Natural Resources Investment Center. Dr. McGinnis is the President of Seneca Corporation, and has 30+ years of experience in exploration geology, and has conducted research on every continent, including Antarctica. All three of these recipients have received numerous awards throughout their careers.

Alumni Profile: Michael Sabones

Michael Sabones graduated from EAPS with a Bachelor’s degree in Atmospheric Science in 1973. That same year, he began his career with the National Weather Service (NWS) as a Meteorologist Intern in Raleigh, North Carolina. While there, he rose through the ranks to eventually take the position of Lead Forecaster.

In 1990, Sabones was chosen as the first Science and Operations Office (SOO) in the country, a new position in a modernized NWS station at Melbourne, Florida. In 1992, he was chosen as the Deputy Meteorologist-in-Charge at the NWS office in Indianapolis and in 1997, he was promoted to Meteorologist-in-Charge at the then-new NWS Northern Indiana Office in Syracuse, Indiana.

In looking back on his career, Sabones said trying new things was a key to his professional success.

“I was willing to take some risks in my career that paid off,” he said. “The SOO position was brand new and untested when I took the position, but it proved to be an important position that elevated science and research at NWS offices across the country.”

Sabones retired from NWS in 2013, after a career of nearly 40 years. He has been an active member of the EAPS Alumni Advisory Board, and enjoys traveling and spending time with family.

Photo Submissions

Do you have any photos or stories from your time at EAPS that you'd like to share with us? Feel free to send them! We'd love to have the opportunity to share them on our social media pages, website, newsletter, or other department communications and promotional content, including materials advertising the Black and Golden Jubilee next year. You can send these stories and photos via email to Logan Judy, EAPS Communications Specialist, at ljudy@purdue.edu.
Dr. Granger Discovers Evidence for China’s Great Flood

Some archaeologists previously thought the Chinese Xia dynasty mythological, but new evidence suggests otherwise. A new study coauthored by EAPS Professor Darryl Granger, which was published in Science, reveals geological evidence of a cataclysmic flood along the Yellow River in north central China. This flood, Granger says, could be the flood associated with Emperor Yu, who by tradition begins the first dynasty of China. Both the flood and dynasty were once thought to be fictitious, due to a lack of archaeological evidence.

“An earthquake triggered a landslide that dammed the river, and when the dam broke it released a catastrophic flood,” he said. “We suggest that this flood corresponds to the story of the Great Flood as told in China.”

The research was conducted by a team led by geologist Qinglong Wu of China’s Nanjing Normal University. The study began when sediments from a landslide bordering the Yellow River were also found more than fifteen miles away, at the Lajia archaeological site. Further investigation revealed evidence of a flood so powerful it would have raged at 300,000 to 500,000 cubic meters per second. The damage would have been widespread and catastrophic.

In the legend of the Great Flood, it took Emperor Wu’s people multiple generations (about 20 years) to control the flood, something Granger says “makes sense in light of the geological evidence.”

“This was one of the largest known floods on Earth over the past 10,000 years,” he said, “and this is the first time that geologic evidence for it has ever been found.”

Tornado Alley Has Moved Further East

The next time Hollywood remakes “The Wizard of Oz,” Dorothy may hail from Alabama.

The locus of tornado activity in the United States has moved, according to research by EAPS Professor Ernest Agee. The article, published in American Meteorological Society’s Journal of Applied Meteorology and Climatology, shows evidence that the center of annual tornado activity has moved from Oklahoma to Alabama.

“This completely redefines annual tornado activity in the United States,” Agee said.

Agee’s team studied data from the past fifty years to look for temporal shifts in annual tornado activity. They divided fifty years of data into two groups—a cold period and a warm period—ranging from 1954 to 1983 and 1984 to 2013, respectively. According to their results, the traditional “Tornado Alley” has been replaced by “Dixie Alley” — the area ranging from Mississippi to Indiana.

Why are we seeing such a large change in tornado climatology? While more research needs to be done on tornado distribution in the United States, Agee says it could be related to climate change.

“The geographical shift in tornado activity accompanies a well-documented warming trend over multiple decades,” Agee said. “We need to do more research to know for certain, but this could be an effect of the warming trend on our climate in a tangible way.”
**Graduate Student Highlight: Sheridan Ackiss**

*Where do you come from originally?*

*What is it about Purdue EAPS that was attractive or stood out to you?*
I thought it was really cool that they were a growing department. I was really excited to come into a planetary science program that was basically brand new and help to grow it into something awesome.

*Was there anything about your advisor’s work that made you want to work with her specifically?*
Since I had worked before I came to graduate school, I had a pretty good idea on what I wanted to do and had written a proposal to make it happen. Dr. Horgan made me feel like she supported my ideas and was excited to work with me on honing in on those ideas and skills. She made me feel very valued, which is why I wanted to work with her.

*Can you explain your research?*
I study edifices on Mars that may be subglacial in origin, meaning they may have erupted underneath an ice sheet when they were formed. I also study subglacial volcanoes on Earth to compare and contrast the similarities and differences of these features on the two planets. This is important because it focuses on climate change on both planets. Most of the time, the subglacial volcanoes are no longer covered in ice, meaning that the climate had to have changed for the ice to become unstable and melt away.

*What about your experiences and the support you have here has helped you better your research?*
I am a NASA Earth and Space Science Fellow, a fellowship I couldn’t have gotten without the guidance and support of my advisor, so I very much appreciate that. The department also gives graduate student support to attend academic conferences once a year and that has been really helpful!

*What’s your favorite thing about EAPS?*
My favorite thing about EAPS is all of the fun things in the department - we have the wall wraps, the gold mine exhibit, rocks in cases, etc. - all kinds of cool things that really help draw people into our department/major/program.

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**Dr. Hinze Receives Geophysics Award**

For Dr. Bill Hinze, receiving the George P. Woollard Award from the Geological Society of America is more than an award.

The George P. Woollard Award is given annually to an individual who has made outstanding contributions to geology in the field of geophysics. What makes this different for Dr. Hinze? He knew and worked closely with Dr. Woollard himself, during the latter’s tenure at Wisconsin University.

“I was Dr. Woollard’s first undergraduate there, and he was my Ph.D. advisor,” Dr. Hinze said. “In addition, I presented the first Woollard Award as Chair of the Geophysics Division 33 years ago. So you can see that the award has special meaning to me.”

Dr. Hinze first came to EAPS in 1972, became Professor Emeritus in 1997, and has remained an active supporter of the geosciences ever since. During his academic career, he was the major professor for nearly one hundred graduate students pursuing M.S. or Ph.D. degrees. Looking back at his career, this was the thing that Dr. Hinze emphasized the most.

“Special awards are meaningful and a pleasure to achieve. However, considering my role in academia the most rewarding aspect of my career is watching the professional and personal progress of my students,” he said. “Seeing them flourish and take very special roles in their profession and society is the most rewarding aspect of my career.”

The award was formally presented at the Geological Society of America Annual Meeting on Sept. 26, after a special session in Dr. Hinze’s honor the preceding day.
SCHEDULED EVENTS

September 21-23, 2017

Sept 21
6:00 P.M. – 8:00 P.M. Reception at Lafayette Brewing Company

Sept 22
8:00 A.M. – 1:00 P.M. Golf Scramble
9:00 A.M. – 11:30 A.M. Campus Geocache Hunt
1:00 P.M. – 3:30 P.M. EAPS Open House
1:00 P.M. – 3:30 P.M. Campus Walk: Back to the Future
5:30 P.M. – 8:30 P.M. Anniversary Gala-Dinner and Reception at Four Points by Sheraton

Sept 23
Two (2) hours before Homecoming Game: Breakfast/Lunch/Tailgate
Football game – Purdue vs. Michigan

For more information, or to register for the event, go to: https://giving.purdue.edu/eaps50.
Upcoming Events - Mark Your Calendars!

AGU 2016: San Francisco, CA  
December 12-16, 2016  
Reception: 7-9 P.M., December 15, at The ThirstyBear Restaurant

AMS 2017: Seattle, WA  
January 22-26, 2017

LPSC 2017: The Woodlands, TX  
March 20-24, 2017

AAG 2017: Boston, MA  
April 5-9, 2017

EAPS Black and Golden Jubilee 50th Anniversary  
West Lafayette, Indiana  
September 21-23, 2017

SEG 2017: Houston, TX  
September 24-27, 2017

GSA 2017: Seattle, WA  
October 22-25, 2017

EAPS will hold a reception at some of the meetings listed above. The time and location is TBD. Please check for updates at www.eaps.purdue.edu/alumni.

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