

June 2012 News Notes

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SES students reflect on AAPG 2012

The AAPG 2012 Annual Convention and Exhibition was held in Long Beach, California this year. Eight undergraduate students were able to attend the conference due to the generosity of Dr. Jory Pacht (1980, PhD), SES, and the College of Arts & Sciences. The students had a wonderful overall experience and learned a great deal about the scope of the conference. They spent time exploring the exhibition floor, speaking with numerous companies about internships, employment, and future involvement with SES. The group also gained great networking experience and established multiple contacts throughout the conference. The networking continued into the SES Alumni breakfast. The breakfast offered a valuable opportunity for the students to network with alumni in the industry and learn about what to expect in an oil and gas career. Pete MacKenzie spoke to the group,

providing valuable advice to the students. Dave Cole also spoke as the SES faculty representative. Besides the exhibition floor and the breakfast the students were kept busy attending oral presentations and viewing posters. The talks and posters opened the student's eyes to the breadth of research being conducted around the world and gave them ideas for their own research. As well as attending, some of the students also presented. Mike Murphy presented a poster and Kyle Shalek gave an oral presentation. Along with all of these valuable experiences the students also saw the benefits of interacting with the industry and

Exploring the Convention and Exhibition Floor are Joel Main, Allie Fair, Kevin Ahlgren, Kyle Shalek, Matt Hawrylak, and Mike Murphy (Joe Voyles taking the picture).

other schools. The student awards dinner was a great opportunity to see what other schools are accomplishing as well as how interested the industry is in students. The students spoke with other schools about their AAPG chapters and the benefits of having an active chapter, such as sponsored field trips and scholarships. SES now has an active AAPG chapter established and is in the process of planning for the next year.

SES Alumni Breakfast

The students shared their personal experiences below:

Mike Murphy Presenting his Poster Titled: "Pore Distribution in the Ordovician Shale of the Utica/Point Pleasant Sub-Basin"

"An Ohio State University AAPG Student Chapter will be in full swing this summer. The 2012 AAPG Annual Convention and Exhibition held in Long Beach, CA was an excellent opportunity to network with industry and academic professionals, observe the latest research being conducted in the petroleum industry, and promote The Ohio State University and the School of Earth Sciences. The number one take away from attending this year's conference was that this is the one place to be if someone is even remotely interested in working in or with the petroleum industry. The networking opportunities are limitless as industry professionals and researchers make themselves

available to discuss the latest topics in the industry. Secondly, the research being conducted is phenomenal with not all of it being directly related to reservoirs, formations, and seismic. Researchers are looking at new techniques in exploration and monitoring using alternative forms of remote sensing like LiDAR and InSAR products. Finally, the conference is an ideal place to promote Ohio State University and the School of Earth Sciences. Our presence at events like this shows that we want to be part of the discussion." -Kevin Ahlgren

"Attending the AAPG conference was a wonderful opportunity to gain an insight into the oil industry. While there, I spoke with many professionals about their careers, their companies, and their experiences. The advice and information I learned will be useful as I continue my education in the earth sciences and look to the future." -Allie Fair

"It was a great experience to meet with representatives from so many companies in the oil and gas industry. I learned a great deal from interacting with them, the OSU alumni, and other students. It was a source of pride to see presentations from a few of our students, and that has me excited about presenting my research at the upcoming AAPG conferences. In my opinion, building a networking base is the hardest part of the education process. Thanks to Jory Pacht, Frank Schwartz, and Pete MacKenzie for making that possible and giving sound advice on how to proceed with seeking a career in oil and gas." -Matt Hawrylak

"My trip to AAPG was a definite eye opener. It was a great networking opportunity and I was able to talk to several companies about employment and internships. When talking to Marathon, Baker Hughes, and Schlumberger I learned the differences between training, hiring, and internships that narrowed my job/internship search. Not only were the networking opportunities great but the new technology presented was amazing. Virtual (3-D) fields to have with you at work and structure modeling and regeneration. Going to AAPG made me solidify my decision about going into industry. I learned of companies and jobs I didn't know existed. I now have a better understanding of the industry and will be looking to grab a job once done with my masters. Thanks to Jory Pacht and all those who supported several students, including myself, to go to the Annual AAPG Convention and Exhibition." -Joel Main

"My poster 'Pore Distribution in the Ordovician Shale of the Utica/Point Pleasant Sub-Basin' went over well. It was selected as one of the top ten posters. There were quite a few people interested in the topic. The interest resulted in two job interviews while still at the convention. At the student chapter awards banquet, members of our new AAPG student chapter met with other student groups. We made preliminary arrangements to conduct a joint field trip next year." -Mike Murphy

"The conference was a great experience. I was able to present my research talk, 'Electrical Property Investigation of Potential Carbon Sequestration Formations' and meet numerous people in my research area. The entire trip was filled with valuable networking. I also gained a great perspective on what we as students can accomplish

personally and for our school by attending the conference. I would like to thank Jory Pacht, SES, and the College of Arts & Sciences for giving us the opportunity to attend. I would also like to thank Pete MacKenzie for his valuable advice and help throughout the conference.” -*Kyle Shalek*

“I truly appreciate the opportunity to attend AAPG thanks to all of the support from Jory Pacht and OSU. Throughout the conference I learned much about the oil industry and met many valuable contacts for my future career. I spoke with many people from industry who gave much appreciated advice, spoke about their personal experiences, as well as career paths. I look forward to attending the AAPG student expo in the Fall to meet with recruiters and learn more about the opportunities in the oil industry.” - *Joe Voyles*

Howat Group Conducts Field Work in Iceland

Graduate students Phaedra Tinder and Ellyn Enderlin spent a week in southeast Iceland collecting oceanographic measurements within the Jokulsarlon Lagoon. A glacier from Europe’s largest Icecap, Vatnajokull, calves icebergs into the lagoon and the field team, along with their advisor Dr. Ian Howat, are investigating how changes in lagoon conditions, such as temperature and tides, effect the rate at which icebergs are produced. The team conducted temperature and salinity surveys of the lagoon from a small inflatable boat and visited sensors that had been installed the previous year. The data will be used by Phaedra for her Master’s thesis.

At right, graduate student Phaedra Tinder conducting an oceanographic survey in Jokulsarlon lagoon, southeast Iceland, with the glacier calving front in the background.

Howat Group Conducts Field Work in Greenland

From April 18 to 30th, Professor Ian Howat, Byrd Post-doctoral Fellow Santiago de la Pena and a colleague from Los Alamos National Lab conducted field work on the Greenland Ice Sheet as part of a NASA project aimed at better understanding how the interior of the ice sheet is responding to rapid thinning at it’s margin. Flying in ski-equipped Twin Otter aircraft, the field team visited several sites above the Jakobshavn Glacier, the largest and fastest glacier in the Northern Hemisphere which has retreated over 15 km over the past decade, and installed equipment to measure changes in ice motion and thickness. The team will revisit the sites and install new ones in each of next two years. The team’s data will also help validate a new laser altimeter that flew over them in a U2 spy plane at 70 thousand feet and will be launched into orbit aboard the ICESat 2 satellite in 2015.

At left: Ian Howat and Santiago de la Pena enjoying -30 deg C temperatures at 2300 m on the Greenland Ice Sheet as they install a snow compaction sensor.

Saltzman's Field Methods Course trip to West Virginia

Prof. Matt Saltzman led a group of students in a field methods course in early May to the Appalachian Basin of eastern West Virginia (Seneca Rocks region) to measure and describe Paleozoic strata. The group stayed in cabins near the top of North Fork Mountain overlooking Germany Valley. Students measured sections in detail at 6 localities, including the Ordovician Black River and Trenton succession at Dolly Ridge, WV; the Ordovician-Silurian Juniata-Tuscarora at North Fork Mountain, WV; the Silurian Rose Hill to Wills Creek at Blue Grass, VA; the Siluro-Devonian Tonoloway-Helderberg succession at Mustoe and McDowell, VA; and the Late Devonian Foreknobs (Catskill) formation at Briery Gap, WV. Another set of smaller outcrops were visited in the Late Ordovician Reedsville and Lower to Middle Devonian Oriskany-Needmore-Marcellus (Millboro) formations. Despite a 9:30pm dinner bell the first night and an early morning cloudburst that delayed the start of the next day, all went pretty much as planned!

Outcrop at North Fork Mountain, WV with the redbeds of the Juniata Formation overlain by the white Tuscarora Sandstone. This transition marks the Ordovician-Silurian boundary.

Measuring a section with across a fault with minor displacement in the Middle Silurian (Wenlock-Ludlow) Williamsport Sandstone at Blue Grass, VA.

Charlie Diamond using a jacob staff to measure through the Foreknobs formation ("Catskill Delta") at Briery Gap.

Standing in the redbeds of the Hampshire Formation near the top of the Briery Gap, WV section are (from left to right): Cole Edwards (TA), Derek Foley, Victor Perez, Kelsey Dailey, Cody Trigg, Charlie Diamond, Alex Rytel, Jeff Thompson, Nick Leeper, Matt Hawrylak, and Mark Peter.

Charlie Diamond, Nick Leeper, and Jeff Thompson (left to right on top) using a jacob staff to measure through the Foreknobs formation ("Catskill Delta") at Briery Gap, WV. Describing rocks below are Kelsey Dailey, Alex Rytel, Mark Peter and Victor Perez (left to right).

Kelsey Dailey at Briery Gap, WV.

Cody Trigg (center) measuring a section
at Briery Gap, WV with Alex Rytel, Victor
Perez and Matt Hawrylak.

Describing the section at Blue Grass, VA.

Wilson's Structure Field Trip - A Miracle!

Seriously, for the first time in at least 5 years we had beautiful weather – no dripping hands clutching bruntons under a downpour – it was great! The trip went on a loop across the Valley & Ridge Province in Maryland and West Virginia, just getting to the Blue Ridge at Catoctin Mountain to view greenschist facies metabasalts and quartzites/phyllites of the Weverton Formation. Highlights included the overturned fold limb at Harpers Ferry, ductile folding of Tomstown dolomite, boudins (some said 'subtle'....), and the view of Sideling Hill syncline. The group measured bedding, axial plane cleavage, axial planes and fold hinge lines (remember all those terms?) at Roundtop and Cherry Run, which we used for a stereographic analysis in lab. Great camping and fireside fun.....

Scholarships awarded at SES banquet

Endowed funds established by gifts and bequests from former students and faculty of the School of Earth Sciences provide funding for undergraduate scholarships of \$1000 to \$2000 awarded to high achieving undergraduate students in the School of Earth Sciences. Some of the scholarships are awarded on a need-basis. Scholarships were announced by Professor and Undergraduate Committee Chair, Dr. Anne E. Carey, at the annual SES awards banquet on May 29, 2012.

Goldthwait Geology Fund established by Emeritus Professor Richard P. Goldthwait, deceased
Jordan P. Scheuerman, 2014
William K. Eymold, 2014
Kelsey R. Dailey, 2013

Marcus J. and Lottie C. Lieberman Scholarship Fund in memory of Marcus J. Lieberman (B.A., Geology, 1931)
Jeremy R. Myers, 2013
Derek A. Kackley, 2015
Alex Rytel, 2012

Willis E. "Bill" Rector Endowed Scholarship Fund in honor of Bill Rector (B.S., Geology 1957)
Kelsey M. Bisson, 2013
Christina L. Zerda, 2014

William J. Buschman Scholarship Fund from an estate gift from William J. Buschman (B.S. 1948)
Charles W. Diamond, 2013
Natasha A. Lewis, 2014
Ronald E. Lidderdale, 2013

The Michael S. Johnson (B.S. 1947, M.S. 1949, both Geology) grant is awarded annually to support graduate students who are well-rounded and outstanding academically. This year, Michael S. Johnson scholarships were awarded to:

Jeff Pigott – Solid Earth Dynamics
Ellyn Enderlin – Water, Climate and the Environment
Cole Edwards – Earth History
Chunli Dai – Geodetic Science
Deborah Leslie – Water, Climate and the Environment

Awards and Honors

Senior undergraduate student, Matthew Rine, has been awarded a \$6000 Arts and Sciences Honors Undergraduate Research scholarship for the 2012 academic year. Matt won this competitive scholarship by writing a proposal about his research on ephemeral snow cover. His scholarship was for the highest amount awarded by the Arts & Sciences in Spring 2012. Matt will conduct his research under the direction of Assistant Professor Michael Durand.

Awards and Honors

Graduate student Verena Schoepf (adviser: Prof Andrea Grottoli) has been awarded an OSU Presidential Fellowship. This is a 12-month, stipend+tuition+fees fellowship. The fellowship “recognizes outstanding scholarship and research ability, plus provides recipients with the opportunity to devote full time to their dissertation research”

Assistant Professor Michael Durand received the NASA New Investigators Program award, a three-year award. The NIP in Earth Science is “designed to encourage the integration of Earth system research and education/outreach by scientists and engineers at the early stage of their professional careers.” Durand’s proposal was entitled, “Estimating Snow Water Equivalent in Mountainous Areas from Passive Microwave Measurements: Comparing Two Candidate Algorithms”

Prof D. R. Cole received the 2011 Bernold M. Hanson AAPG Division of Environmental Geosciences Excellence of Presentation Award at the AAPG Annual Convention in Long Beach for the talk presented last year at the Houston AAPG - “Geochemical Monitoring during the CO₂ Injection Test at Lost Hills CA”.

Berry Lyons has recently been named the International Association of Geochemistry’s Ingerson International Lecturer. The lecturer is selected in odd-numbered years and Lyons will deliver his lecture at the 14th Water-Rock Interaction Symposium in June of 2013 in Avignon, France.

At the upcoming 34th International Geological Congress in Brisbane, Australia, Stig. M. Bergström (School of Earth Sciences, Professor Emeritus) will be awarded the International Commission on Stratigraphy 2012 Digby McLaren Prize and the International Union of Geological Sciences 2012 Scientific Award of Excellence. The ICS Digby McLaren Prize is awarded once every four years. It recognizes an individual who has sustained a long record of significant internationally important contributions to stratigraphy.

Brevia

Prof D. R. Cole organized the 1st Deep Energy Directorate workshop of the Sloan Foundation funded Deep Carbon Observatory in Paris held at the Institut de Physique du Globe Paris (IPGP). This workshop was attended by roughly 70 scientists from all over the world to discuss the origin of reduced carbon in the crust and mantle.

Phd student Maya Wei-Haas (adviser: Prof Yo Chin) was invited to give a talk at the first ever Gordon Research Seminar that precedes the standard Gordon Conference in Holderness, New Hampshire. This seminar is organized by postdocs, students, and early career scientists.

On June 22, 2012, after participating in the SIAM Conference on Applied Linear Algebra in Valencia/Spain, Burkhard Schaffrin will travel to Berlin/Germany in order to continue his cooperation with his previous postdoc and Humboldt Fellow, Prof. Frank Neitzel, who is currently heading the Inst. for Geodesy and Geoinformation at the Berlin University of Technology. Essential funding for this research will thankfully be provided by the Alexander-von-Humboldt Foundation.