

April 2015 News Notes

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Alumni Change Lives

Alex Rytel is a second year M.S. student working with Dr. Wendy Panero. Here Alex explains how the Friends of Orton Hall fund helped to further his graduate studies.

My research helps to put constraints on the Earth's deep mantle water cycle which is key to determining how much Earth's oceans are replenished by water from the mantle over geologic time scales. I concentrate on calculating the stability of hydrogen-bearing minerals at the high-pressure conditions of Earth's interior through the direct application of the laws of physics.

During December, I attended the annual meeting of the American Geophysical Union in San Francisco, CA utilizing financial support provided by the Friends of Orton Hall fund. My presentation focused on the effect crystallographic disorder has on mineral stability. I gained an unexpected breadth and depth of knowledge regarding my research and its context in the scientific community. In a very short time I was able to pick up an abundance of material relevant to my work as well as knowledge about conducting research. Undoubtedly, my research project will be better due to my conference experience. I was also able to attend sessions outside of my immediate discipline and I learned a great deal about the current state of other Earth science fields.

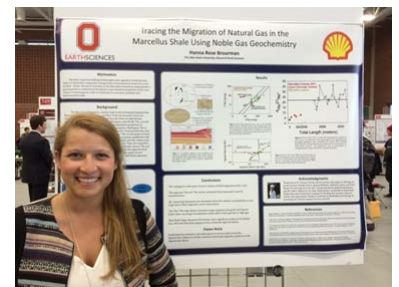
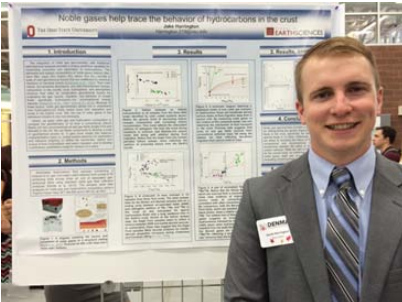
I am extremely grateful to the Friends of Orton Hall for their financial support because attending this meeting would not have been possible without them.



SES at the Denman Research Forum

At the OSU Denman Undergraduate Research Forum on March 25, fourteen undergraduate majors in the School of Earth Sciences presented posters on their research. They were among the 53 students presenting in the Mathematical & Physical Sciences category. Students who presented are pictured below (center), from left to right:

Steve Coss, advised by Mike Durand
Hanna Brouman, advised by Tom Darrah
Zach Dobey, advised by Mike Barton
Jake Harrington, advised by Tom Darrah
Matt Edgin, advised by Dave Cole
Casey Saup, advised by Andréa Grottoli
Sean O'Brien, advised by Larry Krissek
Mackenzie Scharenberg, advised by Wendy Panero
Jordan Scheuermann, advised by Berry Lyons
Laura Miller, advised by Anne Carey
Erica Maletic, advised by Tom Darrah
Erin Lathrop, advised by Larry Krissek
Amber Huston, advised by Larry Krissek
Ken Peterman, advised by Mike Barton



Among the 53 students in the Math and Physical Sciences category, seven prizes were given. Earth Science students won two of those prizes. Congratulations to Jake Harrington (photo above, left) who won a second place for his poster on "Using noble gas geochemistry to characterize fluid migration in the Eagle Ford Shale." Congratulations to Hanna Brouman (photo above, right) who won a third place for her poster on "Tracing the migration of natural gas in the Marcellus Shale using the noble gas geochemistry of silicate mineral phases." Congratulations should also go to Prof Tom Darrah who supervised both Hanna's and Jake's research.

In addition, a total of 7 honorable mentions were given in the Math & Physical Sciences category, of which SES students won two. Congratulations to Casey Saup (adviser: Prof Andrea Grottoli) for her poster on "Physiologic and isotopic responses of the coral *Stylophora pistillata* to future coastal ocean conditions". Congratulations to Laura Miller (advisers Prof Anne Carey and Sue Welch) for her poster on "What's weathering in La Sierra de las Minas?".

Grottoli gives TEDx Talk

Prof Grottoli recently gave a TEDx OSU talk entitled "Our Coral Connection" as part of the Human Narrative theme for this year's TEDx event (<http://tedx.osu.edu>) on 14 Feb 2015. TEDx OSU is an independently organized TED event designed to provide a platform to communicate ideas worth spreading based on the TED structure. TED started in 1984 as a conference where technology, entertainment and design converged. Today TEDx events occur globally. Dr. Grottoli's talk is now available online ([link](#)). Her presentation focuses on how all humans are connected to coral reefs and that we all play a role in protecting reefs through our role in the carbon cycle.



AAPG Chapter Update

The AAPG Chapter at OSU is proud to introduce this coming year's chairs, who will be involved with the E-Board to work on improving the chapter and providing the activities this year.

Program/Publicity Chair: *Andrew Collins*

Field Trip Chair: *Sean O'Brien*

Fundraising/Grant Chair: *Laura Miller*

Community Chair: *Lienne Sethna*

On Saturday April 4th, members visited the Drake Well Museum in Titusville, Pennsylvania. It houses the 1st commercial oil well in the United States of America, drilled by Colonel Edwin Drake in 1859. *Pictured below.*

AAPG OSU Professional Workshops Part 1

On Tuesday April 7th, students attended a resume workshop lead by ACS Career Services Assistant Director Scott Kustis. Students learned about all important aspects of resume building, and formatting a resume for a specific market. This event was part of our AAPG OSU Professional Workshop series, preparing our members for the AAPG ACE Denver 2015 and the upcoming recruiting season in August/September.



AAPG Chapter Update (continued)

Upcoming Events

We are happy to announce that we will be officially integrating SEG (Society of Exploration Geophysics) into the chapter. This integration will provide students with more geophysical resources as we develop into complete geoscientists. More details to come next month. We are currently preparing our trip out to Denver for the AAPG ACE 2015. We will be developing technically & professionally, representing SES at the OSU Booth, and even going on some geological field trips around the Denver area.

If any alumni are interested in visiting or interacting with the AAPG Student Chapter at OSU, please feel free to contact us at aapg@osu.edu. Let us know if you are attending the AAPG ACE 2015 in June or if you have any questions about our preparation for the conference. Keep up to date on all things OSU AAPG at <http://aapg.org.ohio-state.edu>. Stayed tuned & Go Bucks!!!

Member Highlight – Chen Yang

As a new student of the Ohio State University, I am very glad to join the AAPG OSU Chapter. Before joining SES as a Masters student, I worked for BGP Inc, China National Petroleum Cooperation (CNPC) as a field geophysicist from 2012-2014. During that time, I conducted land seismic data acquisition and VSP (Vertical Seismic Profile) programs. I was also engaged in unconventional reservoirs prospecting programs such as the Coal Bed Methane (CBM) program. In Jan. 2015, I joined the Gulf of Mexico Methane Hydrate Program (led by Dr. Derek Sawyer and Dr. Ann Cook) as a research assistant. My main responsibility is to find geophysical features of methane



hydrate in sediments, study its migration, charge, and seal model in the Gulf of Mexico. With advanced digital computing facilities, I can use many kinds of geophysical data sets (seismic and well-logging) to find out geophysical indications of methane hydrate and confirm prospective methane hydrate areas in the Gulf of Mexico. I am looking forward towards participating in the student chapter with my fellow colleagues and joining them at the AAPG ACE in Denver this June!

Congratulations to alumna Alycia Stigall

Alycia L. Stigall, B.S. with Honors, 1999, recently received the good news that she will be promoted to full professor in the Department of Geological Sciences at Ohio University starting in fall 2015. After graduating from Ohio State, Alycia received her MS (2001) and PhD (2004) in Geology from the University of Kansas where she studied under the direction of Bruce Lieberman and investigated biogeography and evolutionary patterns during the Late Devonian biodiversity crisis. She joined the faculty of Ohio University in 2004 and was promoted to associate professor in 2009. Alycia has been an active researcher and teacher at OU and she has supervised a dozen graduate students there including Brad Walls (BS 2007) and Davey Wright (PhD expected 2017). She has also won outstanding teaching and research awards at OU and been a strong advocate for women in science. Congratulations, Alycia!



SES officers attend SGE convention

Amber Huston (BS expected May 2015), secretary, and Mackenzie Scharenberg (BS expected December 2015), treasurer, of the Sigma Chapter of the Earth Sciences national honorary society, Sigma Gamma Epsilon, attended the 43rd biennial convention of the Society of Sigma Gamma Epsilon. The convention occurred on March 27–29, 2015 and was held to mark the 100th anniversary of the founding of SGE at the University of Kansas, Lawrence, Kansas, home of the Alpha chapter of SGE. The convention provided the opportunity for the chapter officers and delegates to learn about SGE policy, present their chapter reports, and to elect the new national president of SGE. In addition to the society business conducted, the students also had time for a half-day field trip on March 28.

The photo at right shows Amber and Mackenzie in front of an outcrop of the Upper Pennsylvanian Oread Limestone.

Funding for the students' travel to the convention was supplied by the national SGE organization and by the Friends of Orton Hall Fund. Thank you to Amber and Mackenzie for representing Ohio State so ably!



Brevia

Congratulations to undergraduate major, Alan Mason, BS expected 2017, who has been awarded a summer research internship from the Marine Physical Laboratory at Scripps Institution of Oceanography in La Jolla, California where he will be studying ocean environmental acoustics and making good use of his second major in Music.

Congratulations to undergraduate major, Bryan O'Reilly, BS expected 2016, who has been awarded a College of Arts and Sciences Division of Natural and Mathematical Sciences Mayers summer research scholarship. Bryan will be exploring the Moon as a source of helium-3 production and working under the direction of Prof Ralph von Frese.

Alumnus Cody Trigg (BS 2013) has been awarded an NSF Graduate Research Fellowship for his graduate research at Stanford. Congratulations, Cody!

The Washington Post featured Prof Lonnie Thompson and Prof Ellen Mosley Thompson of Geography. The article features a Q&A session with the Thompsons. You can check it out here ([link](#)).

SES graduate students Josh DeVore and Levent Akinci (both advised by Prof Derek Sawyer) each received a GSA graduate student grant. DeVore's and Akinci's presentations are entitled "Mudrock Consolidation in the Presence of Seismicity" and "Salt Diapirism and Slope Failure in the Carolina Trough, Eastern North American Margin" respectively. Congratulations Josh & Levent!

CollegeRank.net recently produced a list of the 50 Most Amazing College Museums ([link](#)), and featured the Orton Geological Museum.