

January 2014 News Notes

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Alumni Change Lives

William Eymold (B.S. 2013) received support from the Friends of Orton Hall, Goldthwait Geology fund, the Edmund M. Spiker memorial scholarship fund, the William J. Buschman scholarship fund, and the Susie Shipley fund. Here, William describes how this helped advance his career.

Friends of Orton Hall recently awarded me funding to pay for my travel expenses to the Fall 2013 meeting of the American Geophysical Union in San Francisco. This annual event allowed me to expand my networking connections to new faculty and experts in the field as I met with potential graduate school advisers. Throughout the week, I attended various talks by professors and graduate



students in seismology, my field of choice for the next step in my academic and professional career. Without the Friends of Orton Hall funding, I would not have been able to attend the conference meeting and it is a gift that I greatly appreciate. Since coming my return to Ohio State for a second degree, the School of Earth Sciences has been very generous in scholarship awards and travel grants, all of which have benefited my educational experience and helped me earn my recent degree. I have been the recipient of SES endowed scholarships by funds given by alumni and alumnae and by faculty to the Goldthwait Geology fund, the Edmund M. Spieker memorial scholarship fund, the William J. Buschman scholarship fund, and the Susie Shipley fund. After my graduation in December 2013, I plan to remain as a researcher in the School of Earth Sciences, working on Dr. Thomas Darrah's mass spectrometry research for the next few months. As I go forward in my career, I hope to one day give back to the School myself and to provide future deserving students with the same opportunities I received.

Congratulations to December 2013 SES graduates!

Seven undergraduate students received their baccalaureate degrees in Earth Sciences at the December 15, 2013 commencement.

Will Blocher, B.S. with Research Distinction, advised by Dr. Terry Wilson, wrote a thesis entitled “Determining the Architecture of the Terror Rift from Stratal Dips in Reflection Seismology Profiles.” Will completed the specialty in Geological Sciences with a minor in Philosophy. He will be attending graduate school at Ohio State beginning in Spring 2014.

Edwin Buchwalter, B.S., advised by Dr. Ann Cook, wrote a thesis entitled “Physical and Geochemical Evidence of Methane Hydrate in Marine Sediments” and completed the specialty in Geological Sciences. Edwin is currently searching for a professional position in the energy industry.

Chad Clendenin, B.S., advised by Drs. Anne Carey and Susan Welch, wrote a thesis entitled “Biogenic Silica and Phosphate Pools in Soils of the North Appalachian Experimental Watershed, Ohio: Evaluation of the Effects of Different Agricultural Practices” and completed the track in Geological Sciences. Chad is searching for a position in the energy industry and expects to move to Texas soon.

William Eymold, B.S. Cum laude with Research Distinction, advised by Dr. Wendy Panero, wrote a thesis entitled “The Viscosity of Carbon Dioxide-rich Fluids at high Pressure and Temperature” and followed the specialization in Petroleum Geology and Geophysics. Billy expects to attend graduate school studying geophysics beginning in Autumn 2014.

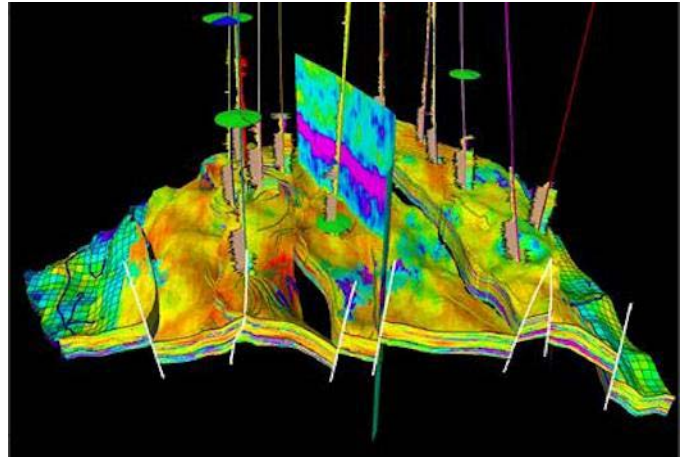
Colin Gearing, B.S., advised by Dr. Andréa Grottoli, wrote a thesis entitled “Particulate Organic Carbon Fluxes in *Acropora millepora* and *Turbinaria reniformis* at Elevated Temperature and pCO₂.” He has completed the specialty in Geological Sciences.

Adam Gorski, B.A., is planning a career in education. He has applied for admission to M.Ed. programs and will seek licensure in teaching middle and high school science education.

Ethan O’Connor, B.S. with Research Distinction, advised Dr. Michael Durand, wrote a thesis entitled “How Accurately Can River Height, Width, Slope and Discharge be Estimated from Ideal SWOT Outputs?” Ethan completed the specialty in Earth System Science. At graduation, Ethan received his commission as a second lieutenant in the United States Army’s infantry branch.

Moortgat lab software donation

Schlumberger has generously donated multiple 3-year-use licenses to various modules of their Eclipse software to the group of Assistant Professor Joachim Moortgat. Eclipse is the leading Reservoir Simulator for engineers in the petroleum industry. These simulators can be used for thesis research. Additionally, hands-on experience with this software can be an asset for students interested in a career in the energy sector. The following options will be available for student use: Black Oil Simulator, Compositional Simulator, Thermal Simulator, CO₂ EOR and Sequestration, Fractured Reservoirs.



Brevia

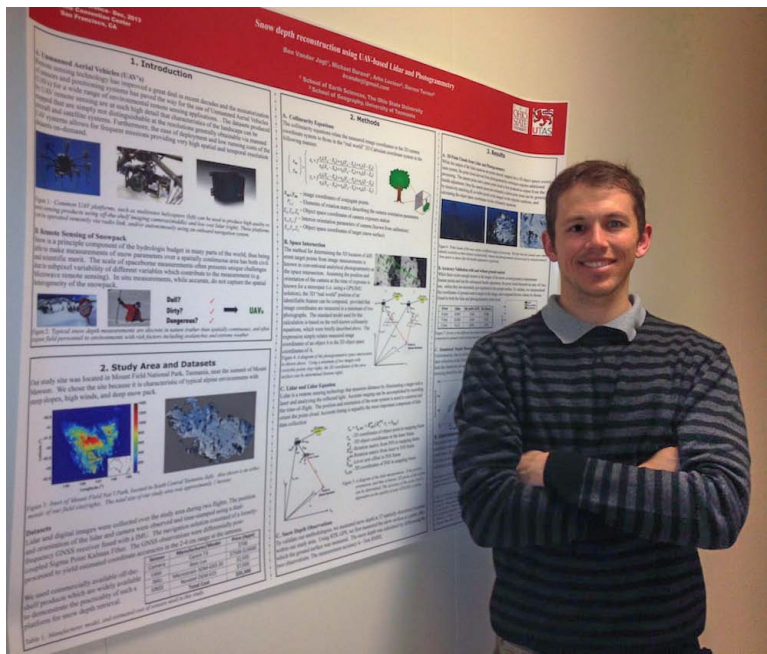
Prof David Cole helped organize the Mineralogical Society of America (MSA) Short Course on “Geochemistry of Geologic CO₂ Sequestration” held at Lawrence Berkeley National Laboratory. He co-edited a 15 chapter MSA Reviews in Mineralogy and Geochemistry volume (77) that was produced for this short course; he co-authored three of these chapters. He also was co-convenor of oral and poster sessions at AGU focused on this same topic area and presented a poster with SES co-authors Alex Swift, Julie Sheets and Sue Welch. PhD student Alex Swift in the Cole group participated in the Short Course and attended AGU.

Postdoc Siddharth Guatam in Prof David Cole’s group attended the 58th DAE-Solid State Physics Symposium hosted by the Board of Research in Nuclear Sciences in Patiala, Punjab India. He presented a paper on “Effect of temperature and pressure on the dynamics of nanoconfined methane”.



At the December 15, 2013 Ohio State University commencement, Deborah Leslie received her Ph.D. degree in Earth Sciences. Deb’s dissertation research, conducted under the direction of SES Director Berry Lyons (see photo at left), utilized stable isotopes as tracers of solute sources and water within the McMurdo Dry Valleys, Antarctica and in Central Ohio. Her dissertation, which she defended on November 6, 2013, was entitled “Applying Stable Isotopes, $\delta^{11}\text{B}$, $\delta^{18}\text{O}$, and δD , in Geochemical and Hydrological Investigations.” Deb is currently applying for faculty positions and also for the Spring semester she will be teaching at Ohio State where she will be the instructor for one section of Earth Sciences 1100, “Planet Earth: How it Works.”

Postdoctoral researcher Rodrigo Paiva at the Byrd Polar Research Center in Dr. Michael Durand’s group has received a prize for his PhD research from the Brazilian science foundation CNPq for young scientists. This award was presented by the Brazilian president Dilma Rousseff in a formal ceremony. Congratulations, Rodrigo!



PhD student Benjamin Vander Jagt (advisor Dr. Michael Durand) received the American Geophysical Union Outstanding Student Paper Award for his poster “Retrieving snow depth using low cost lidar and photogrammetry”. Ben and his poster are pictured at left. Congratulations, Ben!