

July 2012 News Notes

- Shell Undergraduate Research Experience (SURE) underway for 2012
- New polarizing microscopes
- Gnidovec helps organize Ohio Geology Walk
- Photos from SES Field Camp 2012
- OSU Earth Science students volunteer at the K-8th grade Earth Science Camp
- SES Graduate Student Awards 2011-2012
- Brevia

Shell Undergraduate Research Experience 2012

On Monday June 18, 2012, fifteen undergraduate majors in the School of Earth Sciences and a Geology major from Smith College began their SURE internships. 2012 marks the fifth year of this program in which 66 SES undergraduates have now participated. Several of the past participants are currently interns or full-time employees at Shell Exploration and Production Co. in Houston. The SURE students also participated in hourly workshops on writing resumes, cover letters, and personal statements. Those personal development workshops and others to come during the remainder of the summer are sponsored by the university's Undergraduate Research Office Summer Undergraduate Research Institute (SURI) program (<http://undergraduateresearch.osu.edu/suri/calendar2012.html>).



Pictured on the steps of Mendenhall Laboratory are:

Front row, L to R: Eric Parker, Chad Clendenin, Jake Harrington

Second row, Samantha Blanchett (Smith College), Jacqueline Mills, Zach Phillips, Victor Perez

Third row, Jeff Thompson, Kelsey Dailey, Jordan Scheuermann, Brad Hull

Fourth Row, Edwin Buchwalter, Alex Rytel, Billy Eymold

Not pictured is Nick Hindman who was enrolled in Larry Krissek's 1-week field course on the Field Geology of Lake Erie, taught through the university's Stone Lab. Nick returned to campus and joined with SURE in the second week.



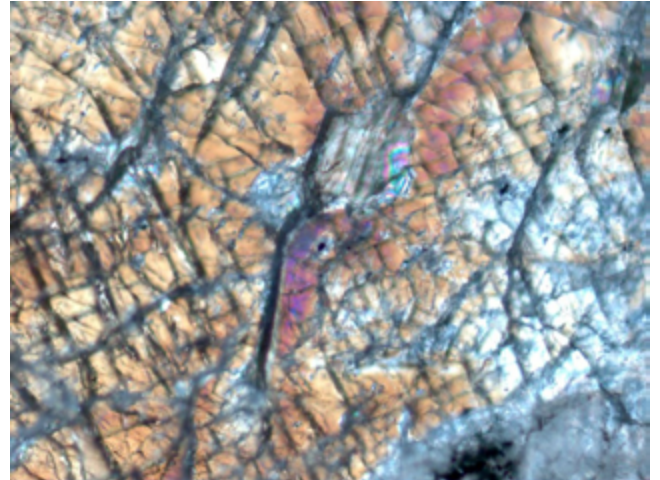
Pictured at left are the SURE students enjoying Graeter's Ice Cream as dessert after their first cookout of the program. Joining the students for lunch on June 22 were SES faculty members: Director Berry Lyons, Geology librarian Mary Scott, Emeritus Professor David Elliot, and SURE coordinator Anne Carey. The weekly cookouts, organized by SURE graduate assistant, Jameson Scott, provide the SURE students an opportunity to socialize and to report on their weekly research projects. In addition to the paid internship on their own research projects, the students enjoy weekly professional and technical development workshops.

Mary Scott taught the first week half-day workshop on

"Library Databases and RefWorks." July's workshops will include introductions to the geochemistry analytical facilities in SES and to the new core x-ray computerized tomography lab, technical workshops on poster making and subsurface exploration, and a visit to the Ohio Department of Natural Resources core lab at Alum Creek.

New polarizing microscopes

The School of Earth Sciences received 20 Leica DM 750P microscopes this summer, replacing the 30 year old polarizing microscopes used for mineralogy and petrology. One of the microscopes has a camera system attached to allow for image projection and photography of thin sections. These new microscopes will be used in introductory mineralogy and petrology, among other classes, including petroleum geology. The microscopes will also be available to students completing their senior research projects. This fall's 38 mineralogy students will be learning to use the microscopes and using images for their research projects. The image at left is the second photo taken by the new microscope by Prof. Wendy Panero. Pop Quiz: Do you recognize the mineral? If so, reply to the news email with the answer. The first to get it right will get a mention in the next news notes.



Gnidovec helps organize Ohio geology walk

For the past five or six years Orton Geological Museum Collection Manager Dale Gnidovec has been part of a committee working on an Ohio geology walk. The committee is chaired by former Ohio First Lady Hope Taft and includes members from the Ohio Geological Survey, OSU, Wright State, COSI, and the minerals industry. Originally to be constructed in the Heritage Garden at the Governor's Mansion in Bexley, the venue was changed to the ODNR complex at the State Fairgrounds. The walk is to a scale of 1 foot = 1 million years, and will have large rocks (with interpretive signage) from the various geologic periods along the way. It will also include a large geologic map of Ohio. The photo at right is the cement pad the map will be affixed to. The grand opening is the first day of the Fair, Wednesday July 25, and about 250 people are expected for the opening ceremony.



Photos from SES Field Camp 2012

Top left: The field camp group went to Capitol Reef National Park. Photo is from the Goosenecks overlook. Top right: The 2012 field class group examine the world-class angular unconformity at Salina Canyon, Utah - spectacular. Bottom right: The field camp group en route to Utah stopped at Joe & Marcia Newhart's for lunch and some local geology. Bottom left: At Capitol Reef - conquering a slot canyon!



OSU Earth Science students volunteer at K-8th grade Earth Science Camp

The Columbus City Schools at Indianola K-8 in Clintonville organized an Earth Science Camp at the Spruce Run Environmental Education Center in Galena, OH near the Hoover Reservoir. The camp is designed to expose students to the fields of Earth Science: such as weathering, astronomy, erosion, deposition, rock formation, rock composition, etc., identifying watershed features, water quality, soil formation, composition and horizons, and topographical mapping, human impacts on the environment, and how the changing environment affects society. On May 17th, 2012, three OSU students volunteered teaching the students fundamental geological processes in the field. Master student Guangdong Liu, taught the traditional method of stream gauging using USGS current meter in the field, and discussed the applications and significance of stream flow in field of engineering and hydrological research. Junior Undergraduate student Zach Cotter showed how erosion and velocity of flowing water affects the stream and surrounding landscape, from the transportation of sediment and rocks, to cut banks and point bar deposition of streams. He also showed the students the applications of what they are learning and how erosion processes and sediment transport affects them in society. First year Ph.D student Molly Semones taught students how stream gauging was done before stream gauges. She also discussed erosion and chemical and nutrient transport, which fit in well because a housing development was recently constructed on previously forested land near the Center. This is expected to lead to changes in stream quality and increased run-off of anthropogenic chemicals such as pesticides, fertilizers, and herbicides.

On May 18th, 2012, three more OSU students, Maya Wei-Haas, Chenyi Yuan, and Joe Voyles continued working with the Indianola students on geologic processes including erosion, sediment deposition, and stream formation. The students took a short walk from their camp to a nearby stream to examine erosion in action. The OSU graduate students led discussions on the importance of vegetation in controlling stream erosion and the significance of the riparian zone. The Indianola students spent time sketching and labeling pictures of erosion processes and the variety of species they observed in the riparian zone. During the trip back to their camp, the group visited a young stream and discussed its characteristics differed from large meandering river they had just visited. The OSU graduate students also guided the students in an exercise targeted at exploring soil formation. The Indianola students collected several soil cores, which they used to examine sediment profiles. Changes in oxygen content resulted in color changes in the sediments, which inspired conversations about what actually composes soil. The students learned how to sieve and then estimate the different grain size fractions to plot soil types on ternary plots. These discussions were important in placing the formation of sediments and soil in the context of larger geologic processes such as the rock cycle.



Guangdong Liu (at left), Zach cotter (second from right), and Molly Semones (at right) with 7th grade students.

SES Graduate Student Awards 2011-2012

SES graduate student awards for the 2011-2012 academic year were presented at the annual SES banquet on May 29, 2012. Note that in the June edition of the Alumni News Notes, both graduate and undergraduate scholarship awards are listed. The non-scholarship awards listed below recognize some of our outstanding graduate students.

Distinguished Teaching Award: Alyssa M. Bancroft, and Michelle C. Torres

Distinguished 1st Year Graduate Student “Estwing Award”: Tingting Liu and Julie M. Brown

Distinguished 1st Year Graduate Student in Geodetic Science: Yuanyuan Jia and Fei Wang

Distinguished Senior PhD Student “Spieker Book Award”: Stephen Levas

Distinguished Senior PhD Student in Geodetic Sciences: Jianbin Duan, Sibel Uzun

Book Award in Geodetic Science: Jacob M. Heck, Jun Shang, and Ben J. Vander Jagt

Brevia

PhD student Ellyn Enderlin attended the International Glaciological Society Meeting in Fairbanks, Alaska from 24 to 29 June and presented her work “Assessing glacier sensitivity to differences in outlet width using a numerical ice flow model”.

Jeff Pigott was awarded a travel grant to COMPRES conference in Tahoe City, CA. He will be giving a talk on his research.

Prof. Lonnie Thompson was featured in the New York Times, this week. The article was entitled, “A Climate Scientist Battles Time and Mortality”; the from the article shown at right features Prof. Thompson doing field work in 1997. The article is at: <http://nyti.ms/Mr8oo1>

