

GeoTERP News:

A Newsletter from the Geology Alumni Council@UMD

Fall 2014



This newsletter represents the first in a series of communications written by and for alums of the Department of Geology at the University of Maryland. It is our hope to enhance the lines of communication, build new relations, and engage the students, alums, faculty and friends, in Departmental matters. We are interested in any feedback you have.

Department Field Trip



Caving anyone? Over the Labor Day weekend, members of the department participated in their annual field trip. The trip was organized by the graduate students, with **Mark Larson** and **Harry Lisabeth** in charge of the logistics. First stop was to see **Callan Bentley** (M.S. 2004) for a detailed overview of the geology of the Appalachians. Callan, a professor at Northern Virginia Community College, graciously welcomed the group of 35 to his home located on the E limb of the Massanutten syncline. That overview provided the framework for much of the remainder of the trip. A short hike to some parasitic folds at Veatch Gap followed. A long ride down I-81 followed to an exposure of the Pulaski Fault just outside of Blacksburg.

The next two days were spent at the Bat Ranch, a property in Giles County in southwest Virginia. The Bat Ranch has access to three caves: Tawney, Clover Hollow, and Smokehole. **Mark Larson** and **Huan Cui** lectured on cave formation and structure. Following the lectures, small groups departed for tours of the caves. The cave decorations were extensive. After several hours, attendees exited the caves tired, wet and muddy. A campfire was lit, stories were told, and after dinner, several grad students entertained with guitars and drums. A very successful trip. The efforts of the grad students were appreciated by all.

Birthday for a Founding Father



Faculty in the News

Ved Lekic (Assistant Professor): We are delighted to announce that Ved Lekic has been chosen as a 2014 Packard Fellow! These highly prestigious fellowships provide \$875K over five years to early career scientists to provide "freedom to take risks and explore new frontiers". There have only been five Packard Fellowships awarded to Maryland faculty in the history of the program and the last such awards were made way back in 2001.

Ann Wylie (Professor): Congratulations to Ann Wylie, who received the President's Medal -- the highest award made by the University! The award was granted at the Faculty and Staff Convocation Ceremony on Oct. 7th at Memorial Chapel. This award is the highest honor the campus community bestows. The recipient of this award is a member of the community with an exemplary record of sustained and acknowledged contribution to the quality of life on the campus. The candidate's career must be distinguished by a dedication to the fulfillment of the University's goals and mission, by professional accomplishments, and by campus service. Particular emphasis is placed on contributions that have had a wide-ranging and enhancing influence on the entire campus community.

Jay Kaufman (Professor): Jay received the Distinguished Scholar-Teacher Award. As part of this award, Jay received an honorarium to support his professional activities. When Jay received this award at the recent Convocation, his contributions to our understanding of deep-time Earth history were recognized, as were his contributions to undergraduates through his innovative year-long undergraduate research course "Once and Future Planet." Jay will give a public lecture to the University community in late October in honor of this award.

Nick Schmerr (Assistant Professor): Congratulations to our newest faculty member, who received the Doornbos Memorial Prize. The prize is presented to a young scientist by the Committee on Studies of the Earth's Deep Interior (SEDI), in association with their biennial meetings, for outstanding work on the Earth's deep interior. It is given in honor of the Dutch seismologist, Durk Doornbos.

Galt Siegrist turned 80! Galt celebrated the occasion of becoming an octogenarian with friends on the eastern shore of Maryland. **Pete Stifel**, **Jerry Weidner** and **Ann Wylie**, all retired professors and members of the first group of faculty in Geology at Maryland, were in attendance. Galt, hired in 1965, served as the first chair of the department (1973-1980), and laid the groundwork for the department for years to come. All while rebuffing attempts by outsiders to inhibit the growth of the faculty teaching Geology. Galt was responsible for 'stealing' faculty lines from other departments, in attempts to hire additional faculty to teach Geology. He was successful with four of those. We owe much of what we have today to the efforts of Galt and his colleague in the early days. Thanks Galt, and Happy Birthday.

Geology Club News



The Geology Club is approaching its 35th year. The club, started by **Willy Accame** (1980), has recently been invigorated by the efforts of co-presidents **Ben Belzer** and **Maddie White**. After a brief hiatus, the club is again recognized by the University and the Student Government Association. The Club is meeting weekly, and has become active in tutoring students in geology courses. Undergraduate and graduate club members are looking to take part in a variety of adventures this academic year. They started in late September, when several club members took advantage of the early Fall weather to climb Old Rag in Shenandoah National Park. **Phil Piccoli** (1992) spoke to club members about the geology along the ride to Virginia, and the charnockites, unakites, nelsonites and opferkessels that contribute to the interesting geology in the park. The view from the top was spectacular!

Student Publications

Undergraduate and graduate students in the department are performing high-caliber research on a wide variety of topics. The expectation of the students and faculty is that the research makes its way into the literature. What follows is a select list of work published during 2014 where students were the first authors on the studies.

- Adam Mansur.** Granulite-facies Xenoliths in Rift Basalts of Northern Tanzania: Age, Composition and Origin of Archean Lower Crust. *Journal of Petrology*.
- Brian Tattitch.** Copper partitioning between felsic melt and CO₂-H₂O bearing saline fluids. *Geochimica et Cosmochimica Acta*.
- Chris Yakymchuk.** Consequences of open system melting in tectonics. *Journal of the Geological Society of London*.
- Chris Yakymchuk.** Behaviour of zircon and monazite during crustal melting. *Journal of the Geological Society of London*.
- Emily Seldomridge.** Geochemical, Temperature, and Hydrologic Transport Limitations on Nitrate Retention in Tidal Freshwater Wetlands, Patuxent River, Maryland. *Wetlands*.
- Gregory Archer.** Highly Siderophile Elements and ¹⁸⁷Re-¹⁸⁷Os Isotopic Systematics of the Allende Meteorite: Evidence for Primary Nebular Processes and Late-stage Alteration. *Geochimica et Cosmochimica Acta*.
- Heather Franz.** Isotopic links between atmospheric chemistry and the deep sulphur cycle on Mars. *Nature*.
- Kevin Miller.** Experimental quantification of permeability for partially molten mantle rocks. *Earth Planetary Science Letters*.
- Michael Pennino.** Urban Stream Burial reduced nitrogen uptake and ecosystem metabolism: implications for watershed nitrogen and carbon fluxes. *Biogeochemistry*.
- Ming Tang.** Hafnium isotopic heterogeneity in zircons from granitic rocks: Geochemical evaluation and modeling of "zircon effect" in crustal anatexis. *Earth and Planetary Science Letters*.
- Ming Tang.** High-precision measurement of Eu/Eu* in geological glasses via LA-ICP-MS analysis. *Journal of Analytical Atomic Spectrometry*.
- Miriam Sharp.** Characterization of the dominant impactor signature for Apollo 17 impact melt rocks. *Geochimica et Cosmochimica Acta*.
- Nanping Wu.** δ³⁴S and Δ³³S records of Paleozoic seawater sulphate based on the analysis of carbonate associated sulphate. *Earth and Planetary Science Letters*.
- Stephanie Johnston.** Formation of ridges on Europa above crystallizing water bodies inside the ice shell. *Icarus*.
- Tamara Newcomer Johnson.** Effects of stormwater management and stream restoration on watershed nitrogen retention. *Biogeochemistry*.
- Xiao-Ming Liu.** Massive magnesium depletion and isotope fractionation in weathered basalts. *Geochimica et Cosmochimica Acta*.

How can you help?

The Alumni Council feels that the alumni are in a position to be very helpful in assisting geology graduates in the following manner: 1. Assist in placing students in meaningful jobs. 2. Identify and promote specific networks that can assist graduating geologists in identifying job opportunities. 3. Encourage fellow alumni to participate in the Department of Geology functions and interests, where appropriate.

Save the dates for the following Department and University Events:

1. Senior Thesis Presentation Day (December 12, 1:00 p.m.).
2. Maryland (MD) Day (April 26th 2015, 10:00 a.m.-4:00 p.m.)

We would love to see you at those events if you would like to attend.

We would be happy to consider other gatherings: behind the scenes tour at the Smithsonian; fossil collecting along the shore of the Chesapeake with an alum and curator of the Calvert Marine Museum; tailgate at a MD Big 10 football game, are just a few possibilities. Do you have something to offer? If you have other ideas, we would love to hear them. We want and need your input.

The alumni web page is available from the web site www.geol.umd.edu. Updates to contact information can be made online through the alumni link on that page. Direct queries about department alumni issues can be made at: geo-aluminfo@umd.edu or through the Departmental Office (301-405-4065).

For information about the department as it occurs, like our Facebook Page: <https://www.facebook.com/UMDGeology>

Send comments, ideas, and feedback about the GeoTERPNews to geo-aluminfo@umd.edu.