

The

BGS REPORT



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The inaugural issue of The BGS Report, the Bruin Geological Survey's quarterly newsletter!

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Cover Image: The newly created logo of the BGS.

This issue of The BGS Report compiled by Kevin Coffey.

From the President



Greetings to all members, alumni and geology enthusiasts. My name is Dallon Stang, and I am co-founder (along with VP Kevin Coffey) of the UCLA Bruin Geological Survey (BGS) and President for its inaugural academic year. I know this newsletter is a little late, but the BGS runs on geologic time. Although it may seem new, the ideas that led to the creation of the BGS have developed throughout my four years at UCLA. As an undergraduate transfer and Master's student, I have noticed the absence of extracurricular geology trips and gatherings that other schools often enjoy. It was decided that a new group focusing solely on geology to supplement required education was indeed overdue. Drawing members from the entire academic spectrum (over 50 so far!) and all sub-disciplines under the earth science umbrella, we have between us an immense collective of knowledge that ought to be shared and sharpened.

Hashed together in the sedimentology office of the Geology building by a parcel of rogues, the BGS constitution was written with a focus on field work (the reason we all love geology) and outreach (to share our love of geology). Although headquartered at a fiercely academic institution, the BGS is an industry-friendly group and will have events to aid members in researching career possibilities available to them. For this to be as successful as we would like it to be, we are counting on UCLA geology alumni to lend a hand, and strongly encourage you to contact our Alumni Relations Liaison Robin Reith (contact info on next page).

While this is my last year at UCLA, I know that the BGS and enthusiasm for geology will persist as a mainstay once I am gone. A little collective effort goes a long way at a premier institution such as this, and I look forward to everything we will accomplish together!

Introducing the BGS!



I know what you're thinking – why are those goofballs on the upper floors of the Geology building so excited these days? The reason (and a fine one, at that) is the formation of the Bruin Geological Survey (BGS)! The BGS is a group of friendly fieldtrip folk, rock researchers and earth enthusiasts who want to dig deeper into the rich geology of our beautiful backyard of southern California and share that richness with our fellow Bruins and the community at large.

To that end, the BGS has recently participated in local scientific literacy events (p. 5-7) and held a moonlight geology hike (p. 8)! Looking forward, the BGS plans to lead day and weekend trips to areas of geologic interest, and to stir up excitement about the world around us. So whether you're a PhD in Geology or you've never seen a rock, we hope that you'll join us on our next adventure!

The BGS is a UCLA Campus Student Organization open to all undergraduate and graduate students. Contact us for more information:

bgs.ucla@gmail.com

<http://ucla.orgsync.com/org/bgs>

BGS Headquarters:

5631 Geology

310-206-0650

Meet the 2012-2013 Board



Dallan Stang – President

2nd Year Geology M.S. student

Dallan studies sedimentology and paleotectonics with Ray Ingersoll, working on the Cajon beds near Rancho Cucamonga and their offset equivalents. He received his B.S. in Geology from UCLA in 2011.



Kevin Coffey – Vice President

1st Year Geology M.S. student

Kevin also studies sedimentology and paleotectonics with Ray Ingersoll. He works on the Paradise Formation in the San Gabriel Mountains. He received his B.S. in Geology and Biology from UCLA in 2012.



Nate Brown – Secretary

1st Year Geology Ph.D. student

Nate studies luminescence dating with Ed Rhodes. He received his M.S. in Earth and Environmental Studies from the University of Illinois at Chicago in 2011 and his B.S. in Geology from Wheaton College in 2009.



Evan Wolf – Treasurer

2nd Year Geology M.S. student

Evan studies Quaternary geology with Ed Rhodes, working on portions of the Garlock fault in the Mojave. He received his B.S. in Earth Science – Geology from UC Santa Cruz in 2010.



Paul McBurnett – Fieldtrip Coordinator

1st Year Geology Ph.D. student

Paul McBurnett studies Quaternary tectonics with An Yin and Ed Rhodes, working in Northeastern India. He received his M.S. and B.S. degrees in Geology from CSUN in 2011 and 2009, respectively, and has instructed at Pierce College and worked in industry.



Robin Reith – Alumni Relations Liaison

2nd Year Geology M.S. student

Robin studies Asian tectonics with An Yin, working on the Tibetan Plateau. She received her B.S. in Geology/Engineering Geology from UCLA in 2010, and will begin working at Occidental Petroleum at the end of the academic year.



Mike Lawson – Recruiting and Outreach Coordinator

3rd Year Geology Ph.D. student

Mike studies luminescence dating with Ed Rhodes. He received his B.S. in Geology from UCLA in 2008, and has worked as a technician for IGPP.

Appointed Officers



Margo Odlum – Gear Coordinator

4th Year Geology B.S. student

Margo studies U-series dating of zircons with Axel Schmitt. She has done extensive fieldwork in New Zealand.



Sean Ahdi – CalGeo / Civil Engineering Liaison

5th Year Engineering Geology / Civil Engineering B.S. student
Sean is also president of CalGeo, UCLA's geotechnical civil engineering student organization.

Outreach: Geology Merit Badge Day

San Pedro, Los Angeles County, California

18 August 2012

Scouts from Boy Scouts of America Troop 854 gathered at the family house of BGS Vice President and former troop member Kevin Coffey to earn their Geology merit badges. The day began with such basics as “What is science?” and “What is geology?” and continued with the rock cycle, different properties of minerals, and the origin, extraction and use of all sorts of Earth materials—from oil to clay to rare-earth metals. An extensive sample collection gave the scouts a chance to examine various rocks and minerals. Armed with their new knowledge, a streak plate, a hand lens, and a pile of pennies and nails, they were able to identify and classify multiple rock types.

A trip to White Point / Royal Palms County Beaches gave the scouts a chance to see geology first-hand. A short hike along the shore featured an angular unconformity, differential erosion, alteration and secondary mineralization along fractures, tar seeps, and spectacular folding, all within the Altamira Shale of the Miocene Monterey Formation. The hike also provided an excellent view of the 2011 White Point Landslide and an ideal spot for a picnic lunch. Scouts used a local geologic map to locate themselves and the landslide, and matched the lithology and bedding orientation with those on the map.



Kevin demonstrates how a translational landslide moves within view of the White Point Landslide. Photo by Leslie Demos.



Left: Members of Troop 854 walk amongst the tide pools on the beds of the Altamira Shale. Right: Gently folded resistant beds protrude from sand and sea. Photos by Leslie Demos.

Outreach: Exploring Your Earth!

Geology Building, UCLA

10 November 2012



Evan Wolf shows samples of native copper to a family that had just examined copper wiring in a cell phone. Photo by Mojghan Haghnegahdar.

For the 4th year in a row the UCLA physical sciences hosted “Exploring Your Universe,” a day of interactive demonstrations and displays explaining the science of the universe for the local school children. As in the past, the Department of Earth and Space Sciences arranged and manned several themed rooms in the Geology building. This year, BGS members Dallan Stang, Kevin Coffey and Robin Reith put together the “Exploring Your Earth!” room, with some of the department’s best samples arranged into igneous, sedimentary and metamorphic tables, and labeled with their names, types and interesting facts. The room also featured an “Earth Materials” display, which paired everyday items, such as wiring, drywall and fuel, with its corresponding raw earth form, such as copper, gypsum and crude oil. A running flume let the children experiment with erosion while getting their hands dirty.

Other inspiring features of the room included: a sand dune simulator, a dissecting scope with olivine and basalt sand samples, and a montage of fieldtrip photos from ESS geology field classes. Evan Wolf, Dallan Stang and Kevin Coffey manned the room from 9 to 5, during which it was visited by hundreds of local school children – a successful day of geologic education and entertainment!

Children and parents heft volcanic bombs and examine vesicles within scoria at the igneous table. Photo by Mojghan Haghnegahdar.



Outreach: Exploring Your Earth!



Top Left: Dallan explains migrating sand dunes while a family watches grains climb to the crest and tumble down the opposite side.

Top Right: Kevin mans the flume while a group of children builds up a mountain out of sand in preparation for an erosion experiment. Diverse grain sizes helped the kids relate the sediment to the boulders, sand and mud of the real world.

Bottom Left: A mother and son enjoy the “Exploring Your Earth” room, while behind them, visitors locate themselves on a geologic map of the UCLA area.

Bottom Right: A family examines a microfault and sandstone concretions.

Photos by Mojghan Haghnegahdar.



Trip: Point Mugu Moonlight Hike

Point Mugu State Park, Ventura County, California

28 December 2012



**[From left to right]: ESS alumnus Miguel Cisneros (now at UT Austin), Mike Huh, Kevin Coffey, Paul McBurnett, and Jenna Fleck from John Hopkins University gather around the flagpole at the top of Mugu Peak.
Photo by Marc Huh.**

BGS members and other geology students gathered at the Chumash Trailhead of Point Mugu State Park under the light of the full moon for BGS's first hike. Paul McBurnett organized and led the hike, which went up an old landslide, through a secluded valley, and finished at Mugu Peak. At the top of Mugu Peak, the group enjoyed spectacular views of the coastline, the Santa Monica Mountains, and the city of Oxnard. Paul mapped the geology of the area in the past, and was able to point out the landslide's geomorphic and sedimentary features despite the darkness. The hike was enjoyed by all, and served as 'Bon Voyage!' for Paul, who left for his field area in northeastern India the next day.



**The flag atop Mugu Peak
beneath the full moon.
Photo by Miguel Cisneros.**

BGS Gear!

BGS has custom gear, thanks to Gear Coordinator Margo Odlum! BGS Koozies are available for \$2 in 5631 Geology, and T-shirts and embroidered hats, hoodies, polos and more will be periodically ordered! Email Margo at bgs.ucla@gmail.com to find out what's in stock or to add your order to the next shipment!

Price List:

(many items are only ordered when requested)

Hats (Navy Blue Trucker) \$15

Hats (Realtree Camo) \$15

Grey, Unisex, S M L XL XXL:

T-shirts \$15

Polos \$20

Pocket Polos \$20

Wind Shirts \$25

Fleeces \$25

Hoodies \$25

Quarter-zips \$30

Light Jackets \$45

