

Geosciences Field Camp 2013





Once again, our undergraduates in the Geosciences and Geobiology BS majors headed west in late May for the hands-on, real-world field experience that is Geosc 472—Field Geology, or as it's affectionately known, Field Camp. The 46 campers this year composed the largest class since 1983 when 52 students headed west. But unlike Penn State students in the 1980s, this year's group reflected at least five different nationalities, ethnicities, and cultures and comprised 28% women, indicative of the increasing diversity of students completing degrees in the Geosciences.

The school began with four Teaching Assistants shepherding the students to Price, UT where they measured, correlated, and interpreted strata in the Book Cliffs. From there the group convoyed to the YBRA field station in Red Lodge, MT, to map the Elk Basin Oil Field, an exercise that has been a Penn State tradition since 1965. Next came a new exercise near Jackson Hole, WY—Quaternary mapping of 11 km² from the base of the Grand Tetons up to the snow line. Following a tour of Yellowstone National Park, the students camped for a week in the Challis National Forest of Idaho where they mapped volcanic rocks and extensional faults of the northern Basin and Range province. After camping for a week, the group traveled down to Alta, UT, in Little Cottonwood Canyon where the students relaxed in nicely appointed ski condominiums for their last two exercises. Traverses in the steep cirques of the canyon were aided by relatively low snowfall in Utah during Winter 2013. In the first exercise, they mapped complex relationships in the classic western US Paleozoic passive margin strata to define Sevier thrust structures. In the second, they identified the sedimentary formations and structure near the edge of the Alta Stock (a small Miocene granitic batholith), located lines of equal metamorphism based on the appearance of certain index minerals, and from those lines estimated peak temperatures as a function of distance from the contact between the stock and the carbonate country rock. The peak temperatures were then used to understand the process of heat transfer associated with the cooling of the stock.

Student response to field camp remains as enthusiastic as ever (which the faculty continues to believe is not a reflection of the Stockholm syndrome). Said one student, "If it looks like a duck and quacks like a duck, then it's a biotite." For more information about our 2014 Field Camp, contact Don Fisher at: dmf6@psu.edu. For a retrospective on field camp's past, point your browser to: http://www3.geosc.psu.edu/alumni/field_camp/index.htm.

—Professors Don Fisher, Maureen Feineman and Rudy Slingerland



Clockwise from Top:
Mapping partners in
Challis National Forest;
Top of the Beartooths;
vigilant Teaching Assis-
tant; students modeling
their safety gear in Elk
Basin; a cold day in the
Book Cliffs (all photos by
N. Meghani)