

Greenland Fieldtrip 2009

Students in the Field

Glacial geology at the edge

by Anders Carlson

This past summer, six graduate students (**Kallina Dunkle, Elizabeth "Lisa" Colville, Andrew Leaf, Ian Orland, David Ullman, and Kelsey Winsor**) and I traveled to Kangerlussuaq located ~20 km from the west Greenland Ice Sheet margin. For the first two days, we acclimatized ourselves to the dry air and constant sunlight while examining the type locality for much of the glacial geology of western Greenland. We then headed inland, trekking the 20 km with full packs to the Greenland



Graduate students at the Greenland Ice Sheet margin: Ian Orland, Lisa Colville, David Ullman, Kallina Dunkle, Andrew Leaf, and Kelsey Winsor. Photo: Anders Carlson

ice margin where we stayed for six days. We studied ice margin sedimentation with an excellent exposed ice cliff that allowed viewing of the glacier bed. Another excellent feature of the region was the bottom of a recently drained ice-marginal lake. All told, we covered ~180 km in nine days, most of it with full packs and no trails. Given the exertion, we were grateful to relax at the end with musk ox roast and reindeer steaks before sojourning to Copenhagen for an evening (see "Greenland Ice on the Scales," page 16). ●

GEOLOGICAL ENGINEERING UPDATE

**By Craig H. Benson, PhD, PE
Chair, Geological Engineering**

After a year hiatus from the University of Wisconsin, I am glad to be back and to have the opportunity to chair Geological Engineering. GLE continues to attract some of UW's best students, and produces exceptional engineers and scientists that are highly sought by industry, despite the nation's current economic woes. Industry representatives repeatedly tell me that our dual-degree (GLE and Geoscience) is particularly valuable. Our graduates have excellent credentials as geologists, practical engineering skills in a broad range of engineering topics that most schools teach at the MS level, and effective communication skills. Recent graduates have gone on to work at large international firms such as Shell and Golder Associates, as well as regional firms such as Natural Resources Technology in the Milwaukee area. Needless to say, leading this cadre of excellent students is a tremendous opportunity.

This fall we graduated Elliot Mergen and Erica Hagen at the undergraduate level with double majors (Geoscience/GLE), and Jonathan O'Donnell, Paul Schlicht, Alex Summit, Andrew Millsbaugh, and Hoang-Hung Tran-Nguyen at the graduate level. Hoang-Hung is our first GLE graduate from Viet Nam, and has returned home to be a professor. Elliot, Jonathan, Paul, Alex, and Andrew have headed off to industry. Erica is pursuing her MS in GLE under the direction of Professors Fratta and Wu. We wish all of our fall graduates the best as they take this next step in their career.

I am also glad to announce that Ms. Sabrina Bradshaw has joined GLE as an academic staff member. Sabrina has a BS in Geology and a MS in GLE, both from UW. She will be working primarily as a research scientist in GLE's Recycled Materials Resource Center, which conducts applied research on sustainable geotechnical construction for the US government. Sabrina will also be assisting with GLE outreach to high school students and incoming freshman. Sabrina can be reached at sbradshaw@wisc.edu.

We are currently updating the undergraduate curriculum to reflect both traditional and current themes in practice. The technical elective component of the new curriculum has six tracks: Energy and Minerals,

Sustainability and Environment, Geohazards, Infrastructure, Water, and Engineering Geology. The curriculum is also being revised to incorporate changes being made to the undergraduate curriculum in the Department of Geoscience and to provide students with the opportunity to obtain BS degrees in both GLE and Geoscience without taking any additional courses (historically students needed to complete two additional courses to complete both degrees). Course revisions are also anticipated to enhance our offerings in each of the six tracks. For example, our course in vadose zone hydraulics will be updated to include principles of multiphase flow that are important to reservoir engineering.

During the fall semester we received industrial gifts from Barr Engineering, BP, and Golder Associates along with several personal gifts from our alumni. Budget cuts during the past year have made this support essential. We would not be able to offer our students the high quality education that is the hallmark of UW's GLE without this support. We are thankful for this generosity.

We are always glad to hear from our friends and alumni. Please feel free to contact me any time at chbenson@wisc.edu or +1 (608) 262-7242. And if you are in Madison, please stop by for a visit. ●