



WHITMAN GEOLOGY

Vol. 2, 2006

Dear Geology Alumni;

Last year's Geology Technician, Tara Gregg, initiated this newsletter with the hope that it will establish a stronger connection between alumni and current students. As the current Geotech, I have compiled this second volume of the newsletter with the same hope of strengthening the Whitman Geology community. This newsletter will not only keep you in touch with the events here at Whitman, but your responses will be a valuable resource to students as they make their choices for life outside of Whitman. I'd like to encourage you to become part of Whitman's career consultant network. This is a network of alumni and parents who have agreed to make themselves available to talk to students about their careers and jobs. For more information or to sign up, please visit this website:

http://www.whitman.edu/content/career_center/parents/networking-at-whitman

If you have any words of advice for students or would like to write something to be published in a subsequent newsletter, we would be happy to hear from you! In the future, the newsletter will be sent out annually in November, rather than December, in conjunction with Whittie News. You can email me at geotech@whitman.edu

Best Wishes, Savanna Ferguson '06

Where in the world is Whitman Geology?

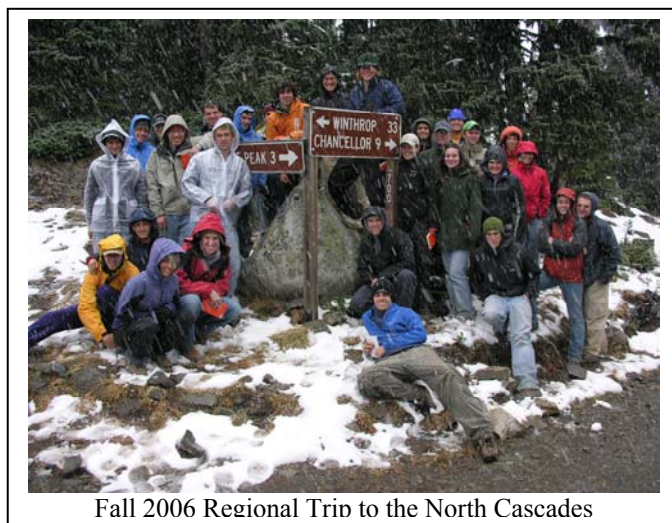
This fall the Regional Geology trip was to the North Cascades. Retiring professor John Winter led the trip, his last with the Whitman Geology Department. Professors Bob Carson, Pat Spencer, and Kirsten Nicolaysen were all on the trip along with twenty-six students. We were visited by Cindy Danica Ready Kaufman ('94) and her family, as well as Tara Gregg ('05). On our trip, we traversed the Northwest Cascade Thrust System, the Skagit Crystalline Core, and the Methow graben in the Eastern Suite of the range. We were even surprised by a snowstorm on Harts Pass! With John at the helm, we paid special attention to metamorphosed outcrops. Migmatites were the highlight!

From Thailand to the Arctic:

Student Summer Research

In July and August, Brian Coggan ('07) traveled to Mongolia with Bob Carson as part of a Keck Project to investigate the glacial geomorphology of the Hangay Mountains. Located in Central Mongolia, the Hangay range has no modern glaciers, but glaciations in the Pleistocene left ample evidence of their presence. For three weeks, they hiked throughout the area documenting the geomorphology of the region. Back at school, Coggan will use this research to construct a model for the last glaciation in the area as part of his senior thesis.

This summer, junior Tamara Carley designed an experiment to examine the impact of tsunamis on microbial communities in coastal freshwater wetlands. In her experiment, model freshwater wetlands are inundated by seawater under different simulated tsunami conditions, and the impact on bacterial community



Fall 2006 Regional Trip to the North Cascades

structure is tracked over time. The effect is measured by extracting bacterial DNA from wetland sediment and running denaturing gradient gel electrophoresis (DGGE). Research was conducted at the University of Notre Dame as part of the Interdisciplinary Studies in Tsunami Impact and Mitigation—Research Experience for Undergraduates (ISTIM-REU). The program concluded with a trip to Thailand to observe the ongoing tsunami-recovery process in the region.

This summer, Ben Schupack ('07) was a member of a high-arctic research team funded by the National Science Foundation (NSF). He spent six weeks on the coast of western Spitsbergen, in the Svalbard Archipelago (76-80° north latitude). Working with seven other undergraduates from the U.S., Schupack studied the effects of climate change in a glacier system containing the largest lake in Svalbard, Lake Linné. This proglacial meltwater lake contains annual sediment deposits (varves), which may be calibrated with recent climate change. For his senior thesis, Schupack is researching the suspended sediment transport and deposition in Lake Linné. He is analyzing temperature, dissolved oxygen, conductivity, and transmissivity data in comparison with meteorological data collected continuously over the past year and during his field season. Additionally, he used an automated remote camera to record images of the lake inlet and sediment plumes every three hours for the duration of the field season. In May, Schupack will present his research at the International Arctic Workshop in Iceland.



Wetland in Thailand, taken by Tamara Carley ('08)



Ben Schupack ('07) in the Arctic

Highlights of Ben's high-arctic research:

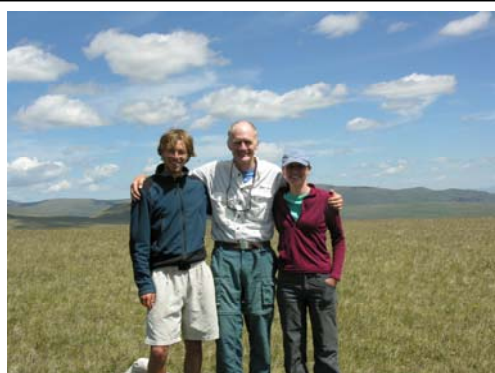
- Hiking an average of 130 kilometers per week in one of the most beautiful places in the world
- Seeing beluga whale pods and reindeer every day
- Norwegian chocolate

For more details on student research visit: www.whitman.edu/geology

Updates on our Geology Extraordinaire

John Winter: Deborah and I spent the summer getting the Mill Creek place cleaned up to sell, as well as arranging the move and building plans for Hawaii. We spent July in Australia. We sold the house two months ago and are now camped out three doors downstream as we finish off our final (!!) semester at Whitman. Although we look forward to a less stressful life, we'll surely miss the great students and wonderful Whitman academic atmosphere. Come visit us on the Big Island. We'll let you know when we get an address and phone number.

Bob Carson: the 2006 Keck Geology Consortium research project in the Hangay Mountains of central Mongolia was a great success, with Karl Wegmann (Whitman '96) as one of the faculty and three current Whitman students participating. Three other Whitman students, having done research with Susan Hubbard Sakimoto (Whitman '89) in Idaho and Thailand, gave presentations at the annual meeting of the Geological Society of America in Philadelphia. There were twenty-two Whitties at the



Brian Coggan ('07), Bob Carson, and Laurel Stratton ('07)

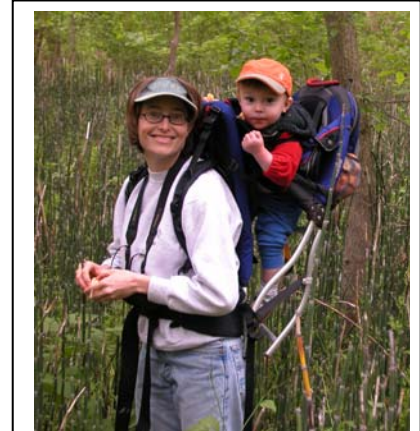
nearby brewpub event. This is an annual occurrence, so plan to meet us in Denver next fall. And there will be a geology alumni event in connection with the AGU meeting in San Francisco in December 2006. Next summer I'm leading two alum trips, rafting the Grand Canyon in June (this trip is full), and cruising from England to Spitsbergen via Norway's fiords (still room to sign up).

Kevin Pogue: Kevin is enjoying his sabbatical this semester. In September, he led a Whitman alumni field trip to study the various terroirs of the Rhone valley of southern France. He'll be back in the classroom in January.

Kirsten Nicolaysen: My family (Tim and Brooks Parker) are delighted with the move to Whitman from Kansas State University, a move that makes earlier contacts with Whitman, via a Keck project and meeting John Winter at a teaching conference, seem all the more significant.

What's on deck for this year? I'm teaching Mineralogy and a Volcanoes class this fall and will be teaching Petrology and Environmental Geology this spring. I'm also co-leading a two-credit Spring Break trip to study the volcanoes and ecosystems of Costa Rica. On the research front, I'm mentoring Taylor Johnson ('07) and Emily Seider ('07) in senior research projects and looking forward to the arrival of a new Inductively Coupled Plasma Mass Spectrometer (ICP-MS), an acquisition made possible by the work of Frank Dunnivant in Chemistry, by the Murdock Foundation, and by alumni. This instrument is standard in academic, industry, and government research labs for analyzing trace elements in water, soil, and rock (lava!) samples. I'm really excited about the opportunities this instrument and a portable X-Ray Fluorescence spectrometer create for our students for their senior research projects and for their preparation for post-graduate work possibilities.

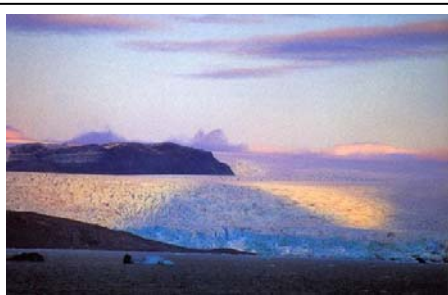
Pat Spencer: Pat has been busy with his responsibilities as Chair of the Faculty, and he wants everyone to know that all's well with him. He's off to Ireland for Thanksgiving Break, and hopes to give a more substantial update in the next edition of the newsletter.



Kirsten Nicolaysen and Brooks Parker eating oranges in an equisetum forest, Missouri River flood plain.

We're getting a new Professor!

Nick Bader will join the Whitman Geology Department this spring as a Visiting Assistant Professor. He will be teaching Introduction to Geographic Information Systems and History of the Earth.



Picture by Gulliksen and Svensen

Upcoming Trips

THE ULTIMATE ARCTIC ADVENTURE: CRUISE TO NORWAY AND SPITZBERGEN IN 2007

Bob Carson is working with the Alumni Office to host alumni, parents, students and friends of Whitman College on a cruise to Norway in 2007 through the North Sea, Norwegian Sea and Arctic Ocean with nine stops in the Norwegian fiords and the Svalbard archipelago. The trip will include scenery, culture, biology, and geology. We will look for glaciers, icebergs and permafrost; wildflowers; reindeer and Arctic fox; birds and more birds; walruses, whales, and more marine mammals; and hopefully,

lots of polar bears. If you are interested and would like more details, please contact Margaret Hoglund in the Alumni Office at (hoglund@whitman.edu).