DGE Newsletter, June 2008

Field & Berry Lab Groups

**June 2:** Adam Wolf (recently returned from Saclay, outside Paris), described some of his work there. He hopes to exploit satellite data to understand various biogeochemistry problems such as the allocation of carbon to roots, stems, leaves, or other sinks on different scales. He's analyzing some data sets taken from the literature. 

Tasting: Adam also brought five different jars of French mustard that we sampled on sandwiches made from boiled potato slices and ham between thin crackers; a great combination. Most people liked the hazelnut flavored mustard best.

**Sharon Robinson,** Assoc. Prof. at the Univ. of Wollongong, Australia is visiting for six weeks (until June 21). She is working with Berry on a liquid phase system to measure isotopic changes during plant respiration.

**June 15:** Nona Chiariello, Research Coordinator at Jasper Ridge, received the Kenneth M. Cuthbertson Award — For Exceptional Contributions to Stanford University — during Stanford's Commencement Ceremonies. She was cited "for being a conscientious steward of the land and species, an educator to students and visitors of all ages, and a respected scientific researcher." Congratulations Nona! **Elliott Campbell** will be joining the Faculty at UC Merced, School of Engineering next Fall.

Jasper Ridge Global Change Experiment

The following Student Interns have been hired to work at the Ridge and on Campus this summer: **Briana Swette, Annie Lindseth, Chris Fedor, Tanya Wilcox, KT Mertes** & **Sara Maatta**

**Briana** is following up on the study of the roots collected at the Ridge in April (see archived page). Now she is doing chemical analyses of these samples back in the lab.

Tanya Wilcox is shown measuring the dry weights of plant parts collected this past Spring. **KT Mertes** is another Intern who has been making similar measurements.

**Kyla Dahlin** is supervising two interns, **Sara Maatta** and **Chris Fedor,** involved with the Forest Monitoring Project at Jasper Ridge. They will be analyzing data collected from all vegetation types with the ENVI Program.

**Annie Lindseth** gathering data from one of the experimental plots at the Ridge.

Seminars

**June 17:** Sharon Robinson described her research titled *Using mosses to measure desertification in Antarctica.* Her group was able to measure the growth rates of these very slow-growing plants between 2003 & 2008 and correlate them with water loss and wind speed. The study provides yet more evidence that reduced snowfall & increased drying winds are causing the mosses to die. The range of Dr. Robinson's research interests is remarkable. See the archived page for July, 2007 for an account of how some plants can produce heat in their flowers.

**June 26:** **Dr. Atul Jain,** Dept. Atmospheric Sciences, Univ. Illinois, Urbana, The Role of Nitrogen Dynamics in Terrestrial Biosphere Interactions between CO₂ Increase, Climate Change, Nitrogen Deposition, Temperature, and Land Use Changes.

Asner Lab Group

**June 3:** Congratulations to **Gregory Asner** and his Lab Group who were just awarded a $1.8 million grant from the John D. and Catherine T. MacArthur Foundation to create a database of plant chemical and remote sensing signatures for tropical forest species. This large ground-based “Spectranomics Project” will expand Carnegie’s unique aerial mapping and remote-sensing capabilities to inventory and track rain forest vegetation around the globe, and it will enhance the value of satellite observations over tropical forest regions.

**Scott Loarie,** a recent PhD from Duke Univ, has joined the Asner Group to continue and broaden his research interests, partly in Africa. Before going to Duke, Scott worked here for Chris Field in Plant Biology.

**Mat Vitousek** has joined the Asner Lab as a Student Technician for the summer and plans to return to Willamette Univ. in Oregon next fall.

The Carnegie Airborne Observatory (CAO) has a new and improved website: [http://cao.stanford.edu](http://cao.stanford.edu) We hope you will visit to learn of the ongoing ecological studies made possible by the CAO systems, personnel, and it collaborators from the science, conservation and management communities. The CAO program has existed for about 18 months, and our first 3-D ecological maps became available just 6 months after the program got underway. Our effort is captured in the images, videos, publications and research highlights that you will find on the new website. We are keeping the website simple and thus rapidly updated, so please check back with us for new results. Many new collaborations are underway, and those are bound to yield unique regional insight to the structure and functioning of ecosystems. Signed **Greg**

**Caldeira Lab**

**June 18:** Exactly two months after **Cristina Archer's** paper (with **Caldeira**) about shifts in the Jet Stream was published in Geophysical
Research Letters, she made a big splash on http://www.youtube.com/articles/view.php3?type=article&article_id=218393120 telling about this research.

Now Cristina has accepted the position of Assistant Professor in the Department of Geological and Environmental Sciences at Cal State, Chico and will begin sometime in August.