DGE Newsletter, February 2009

Field & Berry Lab Groups

Jan. 30: Matt Colgan continued the discussion about Biogeography Models. He showed us results from trying test cases of BIOMM that is a Envelope Model type, and we considered what happens when one or more of the input parameters are changed or omitted.

Feb. 6: Adam Wolf led the continuing discussion of biogeography models. We looked at one of the classic "equilibrium" models -- BIOME. BIOME was the first product in the series that led to LPJ, IBIS, and at least one version of the NCAR land models. A global biome model based on plant physiology and dominance, soil properties and climate was presented. We welcomed Jason Funk back from his job in DC for a couple of days to make arrangements for finishing up his PhD work.


Tasting: Kyla brought four jars of pickled veges including beets, string beans and cucumbers. The names were Windy City Wasabeans, Phat Beets, Slices of Life, & Meanbeans (very hot with wasabi). The health benefit of eating food preserved in vinegar was pointed out as a way of avoiding the toxin produced by Clostridium botulinum.

Feb. 20: Field led a lively discussion of a paper by van Mantgem et al. 2009. Widespread Increase of Tree Mortality Rates in the Western United States. Science 323:521-524. The main question raised was: How many experimental plots are necessary to draw a significant conclusion?

Tasting: Adam Wolf brought samples of nine different sea salts that he had purchased at Rainbow Coop in San Francisco. They ranged from Australian Murray River Salt to English Grey Smoked to Portuguese Floride de Sel. We sprinkled a bit of salt on a cut radish first dipped in olive oil. A great combination!

Outreach

Feb. 14: Chris Field spoke at a symposium titled “What Is New and Surprising since the IPCC Fourth Assessment?” during the annual meeting of the American Association for the Advancement of Science (AAAS) in Chicago. He warned that unless we seriously cut CO2 emissions, global warming will soon enter a vicious cycle that could spiral out of control. He described recent data that lead to this conclusion.

Feb. 25: Chris Field spoke as a representative of the IPCC before a full Senate Committee hearing titled "Update on the Latest Global Warming Science." His talk was about Climate Change Impacts, Adaptation, and Vulnerability [including North America]. For us here at Stanford, it was fun to watch him on a Webcast.

Feb. 26: Ken Caldeira was also in DC testifying before a Congressional Committee about H.R. 860. Here is a quote from his talk: "If we plan to have coral reefs around for the long term, we need to address carbon dioxide emissions, but coral reefs are also affected by other things, like pollution and overfishing.....We must work to enhance their resilience and to do this we must reduce what we can control, like pollution and ship strikes, so coral reefs can cope with the things we can't control as easily, like acidification and warming."

Caldeira Group

Feb. 9: During this week Ken Caldeira will be acting as a member of the delegation of the Intergovernmental Oceanographic Commission to the International Maritime Organization's meeting in London on the regulation of ocean fertilization activities. The International Maritime Organization is the governing body for the London Convention and London Protocol (international agreements designed to limit ocean dumping).

Feb. 6: The Group is continuing its study of marine ecosystems on Australia's Great Barrier Reef. The following report from Jack Silverman describes some of their adventures:

"So far our adventure has been plagued with bad luck. I think that things can only get better now. With that said, One Tree Island is quite an attraction. The Island is about 100 m in diameter and made completely of coral rubble (no sand). It's the nesting ground for thousands of birds during this season which squawk all the time and defecate everywhere including on humans. They are relatively unafraid of humans and tend to get in your face. We spent last night on Heron Island before being picked up by boat in the morning to make passage to One Tree. On Heron the situation is even worse birdwise because of some burrowing bird that makes a terrible moaning sound that kept me up all night. However, we did witness the wonder of sea turtles coming up on shore and laying their eggs. It was quite exciting. All together we saw six turtles in the act of laying during the night and in the early morning hours."

Other members of the Group are Tanya Rivlin, Kenny Schneider, Leah Johnson & Chris Andreassi. You may view Jack's other fine photos by contacting him: <jack.silverman68@gmail.com>

Feb 18: Jack wrote: "At 18:00 you are all invited to our sunset celebration with wine and cheese on the beach at One Tree Island to enjoy the view and relax a bit after a day's hard work and before the nighttime sampling cycle, while enjoying the simple things that life has to offer." (See picture below, later he admitted to the mosquitos. Our Morning Coffee couldn't compete with this except that we had no bugs here.)
JRGCE Research

Feb. 4: Four of the Stanford Undergraduates who performed research at the Jasper Ridge Biological Preserve during the last year or two reported on their various projects during a noontime meeting in the Y2E2 Building. The students and topics were Chris Fedor on Estimating and Mapping Wildfire Risk at JRBP Using Remote Sensing; Annie Lindseth on The impact of insects on late-season grassland composition; Sara Maatta on Monitoring for Management: Developing Remote Sensing Methods of Plant Identification; & Briana Swette on Root Density Response to Global Change. Their power-point presentations were both informative and professional. Thanks also to Nona Chiariello and Kyla Dahlin for their excellent supervision.

Alumni

A note from Noel Gurwick gives us his current address: AAAS Science-Policy-Technology Fellow, Bureau of Economics, Energy, and Business, U.S. Department of State, 2201 C Street NW, Washington, DC 20522 <Noel.Gurwick@gmail.com>

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Editor Jan Brown, e-mail: jbrown1@stanford.edu