

# CCSM Land Model and Biogeochemistry Working Group Meeting

8 February 2010

National Center for Atmospheric Research – Boulder, Colorado

## MONDAY, 8 February

- 9:00 [Dave Lawrence](#) (NCAR) – Welcome, Introductions, and State of CLM4
- 9:30 Discussion of CLM4 and What's Next
- 9:50 [Paul Dirmeyer](#) (COLA) – CLM Performance and Behavior Coupled in Three GCMs
- 10:10 [Keith Oleson](#) (NCAR) – Urban Model and White Roof Experiment
- 11:00 [Zhenghui Xie](#) (Chinese Academy of Sciences) – A Simultaneous Heat and Water Transfer Model
- 11:20 [Paul Kushner](#) (U. Toronto) – Snow Albedo Feedback
- 12:00 [Markus Jochum](#) (NCAR) – Glacial Inception
- 13:30 [Zack Subin](#) (LBNL) – New Lake Model for CLM
- 13:50 [Eunjee Lee](#) (MIT) – The 'CLM-DGVM-SEED': Incorporating a Meteorological Constraint to Plant Migration in the CLM-DGVM
- 14:10 [Koichi Sakaguchi](#) (U. Arizona) – CLM3.5 with Three Biogeochemical Models under Control and Drought Scenarios in the East-Central Amazon Forest
- 14:30 [Abby Swann](#) (UC – Berkeley) – Consequences of Afforestation in the Midlatitudes
- 14:50 [Ian Baker](#) (Colorado State) – Thoughts on Modeling Savannahs
- Historic Offline Forcing Dataset**
- 15:40 [Jim Randerson](#) (UC – Irvine) – Motivation, Global Carbon Project
- 16:00 [Gil Compo](#) (NOAA) – 20<sup>th</sup> Century Reanalysis Project
- [Aiguo Dai](#) – Some Thoughts on Extending and Updating the CLM Forcing Dataset
- 16:20 Discussion on Historic Offline Forcing Dataset
- 16:50 General CLM Discussion (timelines, special issue papers, Tech Note, CCSM tutorial)

## TUESDAY, 9 February

### BGC in CCSM4

- 9:00 Welcome to Joint Session
- 9:10 [Jim Hurrell](#) (NCAR) – Update on CCSM4 / CMIP5 Runs
- 9:30 [Keith Lindsay](#) (NCAR) – Update on BGC in CCSM4 Simulations
- 10:00 [Curt Covey](#) (PCMDI) – BGC in CMIP5 Database
- 10:10 Discussion
- 11:00 [Peter Thornton](#) (ORNL) – Historical Land Use Fluxes and Interactions with CO<sub>2</sub> and Nitrogen Deposition
- 11:20 [Gordon Bonan](#) (NCAR) – Carbon Only Model, Nitrogen Impact

- 11:40 Peter Lawrence (NCAR) – FLUXNET GPP
- 11:55 Discussion – Carbon Cycle Diagnostics, Diagnostics Package, C-LAMP/CLM Diagnostics Integration

### **Future Directions**

- 13:30 [Bill Riley](#) (LBNL) – Methane Emissions Modeling
- 13:50 [Adam Schlosser](#) (MIT) – Using CLM to Assess Potential Methane Emissions from Arctic Systems Given Regional Climate Change Uncertainty
- 14:10 [Dave Lawrence](#) (NCAR) – Soil Carbon
- 14:25 [Bryan Travis](#) (LANL) – ARCHY Model and Permafrost Carbon
- 14:40 [Johann Feddema](#) (U. Kansas) – Future Treatment of Land Cover Change
- 15:30 Jung-Eun Lee (U. Chicago) – A Unique Role for Flowering Plants in Modifying Tropical Climate and Biodiversity
- 15:50 [Peter Thornton](#) (ORNL) – Prognostic Land Use in CLM from Two Integrated Assessment Models
- 16:10 [Adam Schlosser](#) (MIT) – Integrated Assessment Modeling: Water Resources and Land Use
- 16:30 [Brian O’Neill](#) (NCAR) – Modeling Spatial Population Scenarios
- 16:50 General BGC Discussion – Carbon cycle diagnostics, special issue papers, analysis, future directions

## **WEDNESDAY, 10 February**

### **Terrestrial BGC**

- 9:00 [Jim Randerson](#) / Sylvia Kloster (UC – Irvine / Cornell) – Wildfire and the Carbon Cycle
- 9:20 [Ying Sun](#) (U. Texas at Austin) – Evaluation of Fire Parameterizations in CLM-CN and its Terrestrial and Climate Impact
- 9:40 [Natalie Mahowald](#) (Cornell) – Dust and the Carbon Cycle
- 10:00 [Mingjie Shi](#) (U. Texas at Austin) – Understanding the Factors Controlling CLM-CN Spinup
- 10:20 [Quinn Thomas](#) (Cornell) – Nitrogen Data

### **Ocean BGC**

- 11:00 Keith Moore (UC – Irvine) – Marine Ecosystem in CCSM4: Balancing the Nitrogen Cycle
- 11:20 [Markus Jochum](#) (NCAR) – Impact of Interactive Ocean BGC on ENSO
- 11:40 Wrap-up BGC Discussion – CMIP5, coordinated land/BGC development, validation of carbon model