Productivity Decline WorkShop #1 - Itinerary

Sunday December 7, 1997

Logistics and General Overview
0830-0900 Informal greetings
0900-0930 Introduction & Logistics   Jim Reichman & NCEAS Staff
9300-1000 Project overview-data synthesis Tom Gower
1000-1030 Project overview-modeling   Ross McMurtrie
1030-1100 Break (coffee/tea)
1100-1130 Modification to agenda & general discussion
1130-1300 Lunch

Review Of Specific Hypotheses Of NPP Decline In Aging Stands
1300-1430 The Stomatal Constraint Hypothesis (Rapporteur: Mike Ryan)
1300-1345 General overview: Experimental findings Barbara Yoder
1345-1400 Modeling perspectives   Lars Pierce
1400-1430 Discussion
1430-1500 Break (coffee/tea)
1500-1700 The Respiration Hypothesis (Rapporteur: Linder)
1500-1545 General overview: Experimental findings Mike Ryan
1545-1615 Modeling perspectives   Roddy Dewar
1615-1700 Discussion
1830   Group Dinner

Monday December 8, 1997
0830-1130 Nutrient Limitation Hypothesis (Rapporteur: Gower)
0830-0900 General overview   Dan Binkley
0900-0915 Experimental findings: Sweden Sune Linder
0915-0930 Experimental findings: Australia Mark Jeffreys
0930-1000 Modeling perspectives   Ross McMurtrie
1000-1030 Break (coffee/tea)
1030-1130 Discussion
1130-1300 Lunch
1300-1500 Other Hypotheses   (Rapporteur: McMurtrie)
1300-1315 Carbon allocation:expeirmental findings Tom Gower
1315-1330 Carbon allocation: modeling perspectives Roddy Dewar
1330-1345 Carbon allocation: modeling perspectives Sietse Mohren
1345-1415 Source-sink relationship   Bob Luxmoore
1415-1445 Discussion: other hypotheses
1445-1515 Break (coffee/tea)
1515-1630 Future Direction[1]
1630-1730 Data Synthesis Group (Chair-Gower, Rapporteur - Ryan)

Modeling Group (Chair-McMurtrie, Rapporteur - Dewar)

1900   Group Dinner

Tuesday December 9, 1997
0830-0930 Data Synthesis Group continue (Chair-Gower, Ryan- Rapporte
          Modeling Group continue (Chair-McMurtrie, Dewar- Rapporteu
0930-1000 Data Synthesis Group Report /Discussion
1000-1030 Modeling Group Report / Discussion
1030-1045 Break (coffee/tea)
1045-1200 Planning (issues include joint papers, working group activi
          12 months, phase 1 & 2 for data synthesis and modeling grou
          group coordination, discussion of activities to be complete
          meeting, schedule for next meeting
1200-1300 Lunch
1300-1400 Rapporteurs prepare and submit summaries
1400-1430 Wrap-up
1430-??   Depart

[1]Future Direction: Objective of this session is for field ecologists
existing data sets (including micrometeorological data), their limita
may soon become available. The discussion should also consider the di
for synthesizing experimental data and decide how best to proceed. Is
not limited to:
1. List of data sets available, including
      • NPP age sequence studies
      • experimental plantations of fast growing species
      • experimental and comparative studies examining causes for decli
2. Do the data sets encompass enough forest ecosystems to provide a g
   perspective?
3. For each forest NPP decline study, what other data are available t
   three hypotheses?
4. Can we identify the cause of NPP decline?
5. What data-based methods are available to identify NPP decline with
6. Future data needs and priorities
7. Discuss Mark's role in Phase 1 of data analysis

The modeling group will need to plan activities for the next 12 month
working group). Activities may best be divided into two phases: Dec.
(proposed 2nd workshop) and May 1998 - December 1998

Issues to be decided during the first workshop include:
1. Which models to use? BIOME-BGC, G'DAY, SUSTAIN, others???

2. How many sites do we initially attempt to parameterize and simulat
   - use contrasting climates, hydraulic architecture, leaf habit
3. Implement a common logic to simulate hypothesized processes respor
   decline or use different logic in each model?
4. Data needs to parameterize model(s)
5. Should we compare models against data or concentrate on model inter
6. Define specifics of model simulations
   - length of simulation, varying climate, etc.
7. Determine roles of Mark and modeling sub-group during phase 1 and :
8. Global implications? Is it premature for this group to tackle thi