

**March 6-7, 2009 workshop**  
**How can we best use the Biosphere 2 Tropical Rainforest to advance understanding of  
tropical forest function under climate change?**

**AGENDA -- DAY 1**

7:00-8:15: BREAKFAST available at the B2 Cafe

8:30 Welcome and Introductions

Scott Saleska and Travis Huxman, UofA

9:00 Linda Leigh – Origins of the Biosphere 2 Rainforest biome

**Part 1: Experiments & ideas for Biosphere 2 Rainforest**

9:15 -- David Galbraith, U. of Edinburgh: What causes Amazon forest dieback in models of global climate change?

9:30 -- Dave Breshears, UofA: What causes tree death in climate change manipulations?

9:45 -- Joe Berry, Carnegie Institute – drought and warming experiments in Biosphere 2 rainforest

10:00 COFFEE BREAK

10:30 Eric Davidson / Paulo Brando – What did we learn from the Tapajos forest drying experiment (and what are we still puzzled by?)

10:45 Rosie Fisher, U. of Sheffield, UK (now Los Alamos National Lab) – Modeling field drought experiments suggests what we need to learn next about tree death

11:00 TOUR of Biosphere 2 Rainforest biome

12:00 LUNCH

**Part 2: Breakout discussion: what should we do next in Biosphere 2?**

2:00 Charge to Breakout groups

2:15 BREAKOUT SESSION 1 ("Questions") (see **breakout guide** to be handed out)

*What are the important questions or experiments that we pursue in B2? As they relate to:*

- Aboveground vegetation dynamics and Ecophysiology
- Belowground vegetation and soil dynamics
- Community ecology
- Tracer studies / Remote sensing
- Modeling

GUIDE: Outline a section of a review paper on outstanding science questions to address in B2

3:00 COFFEE BREAK

3:30 – Presentation: Peter Troch, UofA Hydrology: A new vision for high-resolution coupled model studies of landscape processes: the B2 hillslope biome

4:00 – Reports from breakout groups

5:00 – discussion and prioritization of issues for second day

5:30 Adjourn

6:00 DINNER

8:00 post-dinner presentation (if there is interest):

"Music of the Spheres" -- Interpretation of tropical forest science via Brazilian classical piano!

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**How can we best use the Biosphere 2 Tropical Rainforest to advance understanding of  
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**AGENDA -- DAY 2**

7:00-8:15: BREAKFAST available at the B2 Cafe

8:30 am – TOUR of all of Biosphere 2

10:00 COFFEE

10:30 time for short extra Presentations inspired by day 1

11:00 BREAKOUT 2 ("Answers"): *What are the most appropriate experimental designs and methods that could be used at B2 to answer those questions?*

TASK: Focus on ~5 priority experiments/questions (one for each breakout group), and, in each group, address the following issues needed to implement this experiment or address this question:

- Experimental Design
- Modeling Study Needs
- Infrastructural/instrumentation
- Fill in outline (from day 1 breakout) for including this question/topic in an overall review paper

12:15 LUNCH

1:30 Reconvene: Breakout reports and discussion from the morning

3:00 Coffee Break

3:30 AFTERNOON SMALL-GROUP WORK SESSION

Continue work of Break-out #2. For example, work out more details of design of an experiment, or continue working on a contribution for a review paper that might be submitted following the workshop.

5:00 Workshop Summary session

6:00 DINNER