

## **LBA Meeting @ Ceasar Park, Forteleza, Nov. 4, 2003**

### **Agenda:**

1. Short presentation of project accomplishments between June to November 2003.
2. Future activities for November 2003 to July 2004.
3. Anticipated results that will lead to publications
4. Budget

### **Current people involved on the project:**

Daniela (MS)

Nara (MS)

Maria Jose (G)

Pericles -> Silvana(G)

Ted (D)

Stefan (MS)

Joao Paulo (MS)

Michely (DTI)

Leo (DTI)

Evandro (MS)

Luiz Carlos (MS)

Mark (D)

Mara (D)

Laercio (PER)

Francismary

Shinjiro (PD)

Andy (PD)

Camille (G)

Rodolfo

Workers

Caca

Dudu

Susan

Johannes

Erick

### **1. Report on Work to Date**

#### 1. Transects

transects, vegetation 10 cm and greater and landscape position (Ted and Stefan)

transects, soil 0-20, 20-40, 40-60 cm every 25 meters (Stefan, Leo)

transects, vines (Stefan)

2 x 2 and 5 x 5 plots within transects < 10 cm (Maria Jose)

#### 2. Trees harvested- 100 trees from Block 5

volume of trees being harvested (Maria Jose, Caca, Ted and Stefan)

Density and nutrients (Stefan?)

3. Impact of tree fall (on about 25 logging sites) (Ted and Stefan)  
Gap dimensions, canopy size, damage to other trees
4. Laboratory at UFMT has been purchased and installed
5. Water collection and analyses from microbasins (Mark)
6. Litterfall, litter movement on soils surface and coarse organic debris in streams  
(Evandro)
7. CO<sub>2</sub> fluxes from soil piezometers using NaOH and measurement of subsoil water  
(Mark)
8. Soil survey of microbasins, 0-20, 40-60 cm and piezometers to 7 m (Mark, Joao Paulo)

## **2. Future field work (Nov.03 – July 04)**

1. Continue vegetation transects (5-8) in other blocks with >10 cm trees, soil, vines and some < 10 cm. Use Dada's soil map to locate transects. Put a few transects in Block 6.  
2 weeks in May or June 04  
(Stefan, Maria Jose, Ted, Nara, Caca )
2. Revisit Rohden parcels (10?) inventoried in 1967 that includes less than 10 cm diameter and > 10 cm diameter trees  
February 04  
(Nara, Maria Jose, Caca)
3. Revisit cleared sites in Block 5 and Block 4 (about 10 sites) to look at regeneration dynamics, less the 10 cm and vines. Also look at soils (?).  
August 04  
(Stefan and Nara)
4. Biomass in settlements for allometric equations, do 3 species that are not harvested by Rohden. Also possibly due some less than 30 cm size classes.  
Until June 04  
(Daniela)
5. Biomass and nutrient estimates of felled canopies in Block 5.  
Dec 03  
(Nara and Maria Jose)

6. Soil characterization (nutrients, mineralogy, bulk density, carbon) of deep cores from microbasins

Nov 03

(Luis Carlos, Joao Paulo)

7. DOC in higher than first order streams to the river.

Nov 03 and continuing

(Mara, Mark)

8. Measuring litter fluxes across soil surface and in water

Later Jan 04 and continuing

(Evandro, Mark)

9. Fluxes of DOC and nutrients

Continuing to Dec 04

(Mark, Michely and Leo)

10. Stream fluxes, piezometers- Hydrologic cycle

continuing

(Mark)

11. CO<sub>2</sub> – dissolved and evolved from water and soil (piezometers and surface)

continuing

(Mark-deep soil water, Michely-field and Mara-water)

12. Analysis of transect soils, soil characterization

November, December 2003

(Joao Paulo, Stefan)

### **3. Potential Publications**

1. Biomass and structure of forest (> and < 10cm): Ted

2. Relation of spatial variability of forest to soils and topography(< and > 10cm):

Stefan

3. Model of soil landscape and controls on vegetation: Susan/Dudu

4. Regeneration after cutting with relation to clearing and soils (3 papers): Nara

5. 1967 Rohden reinventory (2 papers; growth and biodiversity affected by logging type): Caca

6. Allometric equations: Stefan/Ted

7. Nutrient and biomass exports from logging in relation to forest and soil stocks, as well as export to streams: Johannes

8. Properties and distribution of soils in microbasins: Joao Paulo

9. Nutrient exports in microbasins in relation to vegetation and soils: Mark/Johannes

10. Hydrology of microbasins – pathways of water flow in soil in relation to soil properties: Mark

11. Pathways and sources of TOC and DOC in microbasins (2 papers; summary paper: Mark and another paper on gross organic C: Evandro)
12. In stream and surface water DOC/CO<sub>2</sub> dynamics: Mark
13. Losses of CO<sub>2</sub> from microbasins: Mark
14. Seasonal dynamics of water and nutrient losses from microbasins: Mark
15. Hydrophobicity effect on water percolation and **lixiviação**: Andy
16. DEM versus forest height: Andy
17. Using remote sensing data to distinguish water deficiencies and water excess in Rohden forest: Andy
18. Identification of vines with remote sensing imagery (IKONOS): Stefan/Andy
19. Biomass or forest volume and/or forest type predictions from remote sensing data: Caca/Susan/Andy
20. Nutrients in the subsoil in relation to soil type and landscape position: Luis Carlos

#### **4. Budget**

Need to determine a better way to send money from US to Brazil using Bradesco account.

Need to decide on how to structure per diems for students. Will consider lowering per diem in Juruena in order to send students to conferences.