

# PAN-AMAZONIA project Bulletin

## NEWS

### **PAN-AMAZONIA central office has moved.**

The whole School of Geography in Oxford University moved to:

Oxford University Centre for the Environment  
(OUCE)

Dyson Perrins Building  
South Parks Road  
Oxford, OX1 3QY (UK)

Also, remember to update the new telephone number for Yadvinder Malhi's office: +44 (0)1865 285188.

### **Congratulations to Ana Claudia Malhado (project administrator / very important person!!!!).**

Ana was successful in securing the Overseas Research Award Scheme (ORS) and Clarendon Bursary funds for reading her PhD at Oxford University on the theme of: *The functional biogeography of the Amazon forest canopy, starting in October.*

### **Welcome to Juliana Stropp the new "IPA" Utrecht fellow.**

Juliana will be working on examining patterns of tree diversity in tropical forest plots, and conducting a statistical analysis of how this diversity is related to climate, soil, topography, altitude and other factors. Juliana is Brazilian, she graduated in Ecology from UNESP University (Brazil) and more recently she received her master's degree on Biology/Ecology from INPA (Instituto Nacional de Pesquisa da Amazonia). Her dissertation title is: Predictive Vegetation Mapping; GIS use for spatial distribution modelling of trees in the Central Amazon. She will be visiting and training during 10 months at Utrecht and Oxford, starting in October.

**Welcome to Eliana Jimenez in Leeds (Leeds "IPA" Fellow).** Eliana visited Leeds and her supervisor Jon Lloyd in August 2005. She was working on her project from the UK during the whole month.

**PAN-AMAZONIA research collaborator Jeff Chambers** is safe and well in California following the recent hurricane in New Orleans. We wish him and his research group all the best in these difficult times.

## August 05

## EVENTS

**From August 1<sup>st</sup> to 3<sup>d</sup> the School of Geography in Leeds University held the RAINFOR-UK annual meeting.** During these intense three days, investigators and students watched an overview about research, news and goals in the RAINFOR project.

One special session were designed for *PAN-AMAZONIA administrative issues.*

See more information in the ADMINISTRATIVE ISSUES section.

## RESEARCH NEWS

**From UNALM & ALTERRA partners –** Universidad Nacional Agraria La Molina, Peru & Alterra, Netherlands.

**Luis F. Suarez started his Master degree** in Applied Ecology Program at UNALM. Luis is working with *Fire influence on organic carbon stability in Amazonian ecosystems.*

Fire is a very important and common factor on tropical forests ecosystems alteration; fire research is scarce mainly in the upper Amazon region. The broad objective pointed out in the title of this proposal is expected to be quantified by means of analysis of organic carbon content and the respiration of soils from different Amazonian zones, and by the evaluation of its resilience.

The study initially considers sites at elevations from 120 to 2500 most in Peru (Oxapampa, Pasco; Puerto Inca, Huanuco; Jenaro Herrera, Loreto) and Brasil (Rondonia).



Photo 1: Luis measuring soil respiration



Photo 2: Luis evaluating fire activity for identification of his experimental plots at Satipo, Junin, Peru.

## “IPA” Space

### Learn a bit more about Liana Anderson (Oxford IPA Fellow) and her work:

My work concerns the analysis the RAINFOR plots landscapes location using GIS techniques associated to remote sensing data. I work on the hypothesis that different landscapes in the tropical forest have different patterns of forest structure, productivity, and turnover that are associated with terrain relief and soil types, and that these landscapes features can be detected with satellite images and correlated with terrain relief data.

The general objective of my proposal is to analyse the representation and biophysical dependence of the RAINFOR study plots location on different landscapes patterns over the Amazon, integrating satellite images, cartographic material and fieldwork data.

Specifics objectives include:

- ✓ To compile and overlay available satellite imagery and multiple scales and resolutions for several the RAINFOR study sites over the Amazon region.
- ✓ Geolocate existing forest plots within these satellite images.
- ✓ Examine the radiometric and textural properties of the images to look for correlates between image properties and forest structure, dynamics and phenology.
- ✓ Utilise this landscape-scale information to scale productivity and biomass from plot to landscape.
- ✓ Make all the data and generated results available to RAINFOR collaborators through a web portal.

### Learn a bit more about Diego Navarrete (CNRS IPA Fellow) and his work:

The goal of my investigation is determine the production of fine litterfall (leaves, flowers, fruits and branches with diameters  $\leq 2$  cm) at different places across the Amazon, as an opportunity for quantify the net production and the influence of each soils characteristics and regional rain in the process. The studies are being made at two different forests of the western Amazon: Nacional Natural Amacayacu Park and in a Colombian forest knowledge as “Varillal” (soils of white sand). We are also getting data from the eastern Amazon, at Nouragues Station (French Guyana)

Preliminary results on litterfall of the Colombian Amazon Forest suggest that there are differences in the amount of produced litterfall between of varillal and Amacayacu forests. Simple observations of the collected samples in the field show a 3:1 size relation between samples of Amacayacu and Varillal.



Photo 3: Diego at Amacayacu (Photographer: Yadvinder)



## ADMINISTRATIVE ISSUES

During the PAN-AMAZONIA session at RAINFOR meeting, there was a discussion about writing and publishing the measurement manuals for all principal measurement and analytical techniques employed by the project participants.

We will produce at least 8 manuals for standard techniques in the next six months:

- ✓ RAINFOR analysis manual
- ✓ Soil respiration and litterfall manual
- ✓ Tree height manual
- ✓ Wood density manual
- ✓ Leaf sampling strategies manual
- ✓ Mode of death manual
- ✓ Roots manual
- ✓ LAI manual

The manuals will be ready by end of 2005 and they will be translated into Portuguese, Spanish, and French.

**Please, send us your suggestions and contribution to the manuals.**



## COLLABORATORS

The PAN-AMAZONIA and RAINFOR research groups initiated new collaboration with our research partners Jeff Chambers from Tulane University, New Orleans, LA, together with Niro Higuchi at INPA.

Tulane student Amanda Sesser conducted measurements of stem respiration at research sites in Tambopata (lowland forest) and Kosnipata (montane forest) in June 2005. INPA student Liliane Martins Teixeira conducted stem respirations at the four Caxiuana plots (tower, terra preta, drought experiment and control) in August 2005.



## WEBSITE

***Have you already visited our new website?***

<http://www.geog.ox.ac.uk/research/projects/panamazonia/index.html>

It has been updated with photos and lectures of 2004 workshops.

**Also, find time to visit Bhaskar's official website:** [www.panamazoniandew.com](http://www.panamazoniandew.com)

***And, to visit the new homepage of the Terrestrial Ecosystems Lab in Oxford***

<http://www.geog.ox.ac.uk/~parama/lab/>

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If there is anything you would like posted in future Bulletins, please contact :

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