

RAINFOR People

Ted Feldpausch
University of Leeds, UK



When did you join RAINFOR?

I started work related to RAINFOR under TROBIT (Tropical Biomes in Transition) in 2006, a NERC-University of Leeds-based project that studied the drivers of forest-savannah transitions, including forests in Bolivia, Brazil, West Africa and Cameroon.

This year actually marks 10 years that I have been working in Brazil. I first started in 2000 while working towards my MSc and PhD at Cornell University, New York, USA, studying post-pasture secondary forests near Manaus, Brazil and later examined the effects of selective logging in southern Amazonia. Those many years working in Brazil gave me a fondness for the forests, people and culture of Amazonia.

Research under RAINFOR has allowed me to build on previous work through pan-Amazonian analyses.

Which are your main research interests?

I have a large interest in forest ecology, carbon and nutrient cycling and the response of tropical forests to anthropogenic disturbance.

Are you involved in any projects at the moment?

I am currently living in Manaus, Brazil where I am working with local collaborators to extend the RAINFOR network to under-sampled areas in central Amazonia.

It has been a few months since our last Newsletter and we have lots of interesting news to share with you about what has been happening within the network!

We invite you to visit <http://www.geog.leeds.ac.uk/projects/rainfor/> for regular news updates.

- **Forest Plots.net** - If you haven't visited Forest Plots (www.ForestPlots.Net) recently, we encourage you to do so. Once you have your login/password combination you can explore the website in more detail. This project is associated with RAINFOR, and provides a web-accessible secure repository for the whole network's forest inventories, of which there are currently 183 plots, plus hundreds more from across the tropics. Plot owners can safely store, manage, and analyse their data here.
- Read up on the **Field Campaigns that RAINFOR people** have been involved in across Amazonia, on the RAINFOR website: http://www.geog.leeds.ac.uk/projects/rainfor/pages/campaigns_eng.html

Recent fieldtrips include Guyana, Ecuador and Peru!



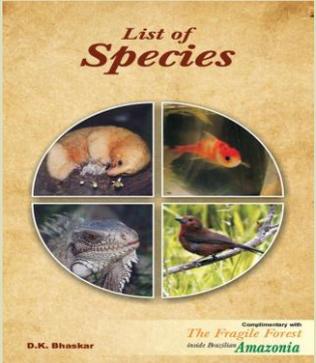
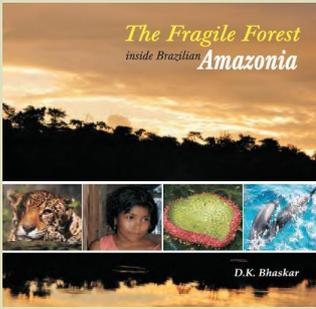
Iwokrama Forest - Guyana

Team - Ecuador



Soils Team - Peru

- **March 2010** – RAINFOR investigators contributed to a widely-publicised statement by tropical forest scientists, rebutting a misleading press release from Boston University claiming that the Amazon is immune to drought impacts. The 'Scientists' statement on recent press release on Amazon susceptibility to reductions in rainfall: no Amazon rainforest "myths" have been debunked', can be found at: <http://climateprogress.org/2010/03/19/amazon-forests-drought-ipcc-feedback-debunk/>



All photos © D.K. Bhaskar/Dewworks

- **June 2010** - The School of Geography, University of Leeds, hosted the RAINFOR-AMAZONICA combined annual project meeting on the 7/8th June, with 30 participants from around the UK and beyond focussing on the carbon balance of the Amazon region. **Manuel Gloor** and **Oliver Phillips** co-ordinated the meetings.

- **July 2010:**

- Research by RAINFOR on the long-term carbon dynamics of Amazonia has been selected as a case study by the Royal Geographical Society, to provide evidence to UK policy makers of the demonstrable impact being made by geographers.
- A very interesting 30 minute video was made available on the RAINFOR website which shows RAINFOR work in Peru. '**Saber Amazónico**' (2009) - Programme produced by IIAP, Iquitos, Peru, with the collaboration of RAINFOR. We encourage you to see it! *Production team: Nelly Varela, Oscar Jarama, Pedro Icomedes.*
- Congratulations to **Erick Oblitas Mendoza** for being awarded a 2 years CNPq research grant (with the possibility to renew for another 2 years) to work as a research fellow at the Ecology Department at INPA (Instituto Nacional de Pesquisas da Amazônia), Brazil. Erick will develop a project, likely to be called: '*Soil carbon stocks in an altitudinal gradient from the Andes to the Amazon*'. Erick will investigate the soil C stocks from 3000 to 200m, and its relationships with natural gradients in temperature and precipitation, as well as with changes in decomposition and productivity. Also he will be fractionating the organic matter from these soils which will produce information on the susceptibility of these soils to climate change (cloud forests have a lot of soil C, which makes them very important). It is expect that this work will lead to Erick's PhD, where he will be able to make a more in-depth analysis from the soil collected.

- **August 2010:**

- Since August 2010 **Ted Feldpausch** (*featured in this issue*) is working in Manaus, Brazil, for five months with collaborators from INPA as one of the objectives of the RAINFOR-Moore-AMAZONICA project to strengthen institutional and academic relationships, and to expand forest sampling into new areas of Amazonia.
- **RAINFOR Fieldwork Manuals: 'Plot Establishment and Remeasurement'** - Now also available to download from the RAINFOR website in Portuguese!
- **Oliver Phillips** and **Yadvinder Malhi** contributed chapters on Climate Change and the Amazon, to the book "**The Fragile Forest: inside Brazilian Amazonia**" authored by **D.K. Bhaskar**, and available at <http://www.amazon.com/Fragile-Forest-Inside-Brazilian-Amazonia/dp/0615383246>. The book has a visually arresting series of photographic impressions of Amazonia, interspersed with narratives of cultural, natural, and scientific exploration. *Some amazing examples can be seen in the column to your left!*

- **September 2010** - Investigators of the RAINFOR project funded by the Moore Foundation have completed the signing of research agreements with two different collaborators in Bolivia, the *Instituto Boliviano de Investigacion Forestal* (IBIF, Bolivian Forestry Research Organization) and the *Universidad Autonoma del Beni* (UAB), to help support long-term monitoring of Bolivian Forests.

- **October 2010** – An updated version of **RAINFOR Field Site Map** is now available on the RAINFOR website:
http://www.geog.leeds.ac.uk/projects/rainfor/pages/fieldsites_eng.html

Ongoing:

- **Peru Permits for 2010/11** – Over the next few months, those who will be carrying out fieldwork in Peru, and have applied via Leeds for a permit, will be emailed a scanned copy of the Peruvian permits, as and when Joana Ricardo receives them. More than **100 collaborators** will be involved in fieldwork in 2010/11!

Aircraft Greenhouse Gas Sampling at Rio Branco and Tabatinga (Seneca II) and Alta Floresta (Cesna 206)



Forest near Alta Floresta



AMAZONICA

Luciana Gatti, Alexandre Martinewski, Luana Basso, Lucas Dominguez, John Miller, Humberto Rocha, Manuel Gloor

The Greenhouse Gas sampling network is now in operation at the stations shown on the map (Fig.1). The network includes so far four aircraft sites with biweekly sampling and 3 Atlantic coast surface stations which provide reference concentrations for air flowing into the basin. At surface stations the sampling frequency is weekly. We are in the process of adding two more surface based stations: one at the foothills of the Peruvian Andes (either Huancayo Observatory or Oxapampa forest). Some of the first results from the network are shown in Fig. 2. We have started to analyse the signals using a profile integration technique as in Gatti et al. 2010. To make further progress towards determining trends of the various carbon pools and the basin as a whole, we need the flux fields to be provided by the other work packages: fluxes due to land use change and fires from remote sensing, fluxes due to river out-gassing and the fluxes associated with changes of the biomass of old-growth forests. These fluxes will permit a more detailed analysis using atmospheric chemistry and transport models.



Figure 1- Stations

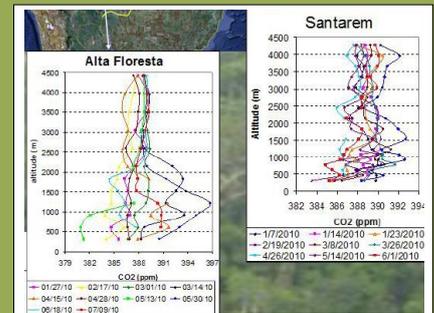


Figure 2- Example of results

Latest publications

Phillips O.L., van der Heijden G., López-González G., Aragão L.E.O.C., Lewis S.L., Lloyd J., Malhi Y., Monteagudo A., Almeida S., Alvarez D. E., Amaral I., Andelman S., Andrade A., Arroyo L., Aymard G., Baker T.R., Blanc L., Bonal D., Alves de Oliveira A.C., Chao K.-J., Dávila C. N., da Costa L., Feldpausch T.R., Fisher J.B., Fyllas N.M., Freitas M.A., Galbraith D., Gloor E., Higuchi N., Honorio E., Jiménez E., Keeling H., Killeen T.J., Lovett J.C., Meir P., Mendoza C., Morel A., Núñez V. P., Patiño S., Peh K., Peña Cruz A., Prieto A., Quesada C.A., Ramírez F., Ramírez H., Rudas A., Salamão R., Schwarz M., Silva J., Silveira M., Sonké B., Sota Thomas A., Stropp J., Vásquez R., Taplin J., and Vilanova E. (2010) **Drought mortality relationships for tropical forests.** *New Phytologist* 187, 631-646.

Contact us for a pdf copy of this article or visit:
<http://www.rainfor.org>

- Other publications can also be downloaded from the website!



RAINFOR papers in discussion

Biogeosciences

An Interactive Open Access Journal of the European Geosciences Union

We encourage our partners and collaborators to visit [Biogeosciences](http://www.biogeosciences-discuss.net/special_issue34.html) to participate in the interactive discussion following this link:

http://www.biogeosciences-discuss.net/special_issue34.html

If you have any feedback, comments or ideas for the next Newsletter, please email:

j.l.s.ricardo@leeds.ac.uk

