AMAZONICA

Contribution from John Grace, University of Edinburgh

AMAZONICA will soon establish two sets of flux measurements in S. America, one in Brazil at the *Ilha do Bananal*, the largest fluvial island in the world, 350 km long and 55 km wide; the second at Tambopata, Peru, where colleagues from Leeds and Oxford have already been working on biomass inventories and biogeochemistry for some time. The challenges posed at the two sites are rather different: at Bananal, colleagues from Edinburgh will work with Humberto da Rocha and colleagues of the University of São Paulo, to establish the first measurements of methane flux over flooded forest. At Tambopata, a 55 meter permanent tower will be built, for CO_2 and methane flux measurements, whilst also measuring the losses of carbon via drainage channels. This is not a 'flooded forest' but 'distinctly damp', and it is on more fertile soil than other towers in the Amazon basin. It is also the first permanent flux tower in Peru.

This installation is enthusiastically supported by Max Gunther the Principal of the Explorers' Inn, the ecotourism site, who commented: *This is the answer to one of my oldest dreams for the lodge, which goes back to the time when Oliver Phillips, as one of the first ones to enjoy the facilities of our Resident Naturalist Programme, started up the investigations that today result in your wish to install this tower. This is a dream, which I unfortunately haven't been able to fulfil in the past due to economic restraints.* We are of course looking forward to seeing the completed structure and working with Peruvian colleagues. After over a year of planning, acquiring and testing sensors, 2010 will be the year of methane flux data.

Aircraft based Greenhouse Gas Measurement Program - Workpackage 1

Luciana Gatti, Manuel Gloor, John Miller

After a long process of transferring money and buying, importing, preparing and testing all instruments we are excited that we can now start the aircraft based greenhouse gas measurement program over the Amazon basin, this December and January. Specifically we will start the aircraft based measurements at Tabatinga (AM) and Rio Branco (AC) where the profile heights will be 14000 feet above ground and Rondonopolis (MT) near Cuiaba with profile height of 14000 feet during the wet season and 28000 feet during the dry season. Similarly we will start ground based sampling at Salinopolis (PA), Kourou (French Guiana) and Cuzco (Peru). These data will provide a more complete characterisation of greenhouse gas fluxes in and out of the lower troposphere above the basin and its controls over the coming years.