

Post-doctoral researcher in tropical forest ecosystem modeling

Full-time, three year position (Nov.2014 – Oct.2017)

Net salary US\$1,950 per month (US\$ 23,395 per year) for scientists with PhD degree obtained after 2004; and US\$ 2,668 per month (US\$ 32,014 per year) for scientists with PhD degree obtained before 2004 (no taxes applicable to salaries).

The Amazonas State Research Foundation (FAPEAM) and Brazil's National Institute for Amazonia Research (INPA) in Manaus, Brazil wish to recruit one post-doctoral researcher in forest ecosystem modeling science to participate in the AmazonFACE project. The extent to which rising atmospheric concentrations will increase the productivity of Amazon forest and reduce its vulnerability to the potential negative impacts of climate change, is one of the greatest unanswered questions in ecosystem and global change science. The aim of this project is to determine how free air CO₂ enrichment (FACE) affects Amazon forest ecosystem functioning. It will be the first FACE experiment ever carried out in mature tropical forest. The appointee will join a team of five post docs set up to initiate and deliver the experiment and its findings.

The post will include the application and development of a few state-of-the-art dynamic global vegetation models (DGVMs) as a way to provide baseline hypothesis (related to CO₂ fertilization effect in tropical forests) to be verified in the field experiment and also to improve current DGVMs with the results generated from the experimental plots. As such the post will also include occasional periods of work at the ZF2 fieldsite, ~70km north of Manaus. The successful applicants therefore will help in promoting an effective link between the science generated by experimentalists and modelers in the AmazonFACE project, upscaling the results of the field experiment to the entire Amazon basin and other tropical forests with DGVMs.

Applicants shall have considerable expertise in ecological modelling, terrestrial ecology, especially the interactions of carbon, water and nutrient cycles, ideally with past experience of ecosystem model development and computational programming language. The person will be able to work effectively in a computational laboratory at UNESP campus in Rio Claro, state of São Paulo, with occasional visits to the experimental site in Manaus and other modelling groups in Brazil and abroad, and, as such, needs to be comfortable working both independently and as part of a large networked and international consortium.

The researcher will join a team, will need to work closely with other researchers, and also be able to visit collaborating laboratories as required, within Brazil and internationally. Key attributes beyond expertise in the specific scientific area include the abilities to see new scientific opportunities, work fairly, collaboratively and sensitively within a team, to be able to supervise a small field team as required, to analyse data and write scientific publications, and to both understand and develop bridges between the experimental data and their use in ecosystem models.

The position will also involve presenting information on research progress and outcomes, and communicating the science orally, in writing and electronically to the Amazon-FACE team and to external audiences, at meetings, workshops or conferences. The ability to communicate clearly in Portuguese and English, or a demonstrated ability and willingness to learn either language, is essential. The applicants should also be able to lead and co-author high-quality scientific publications within relatively short time periods.

The posts offer substantial potential as part of this project but also through links with the lead scientists with related on-going projects in Amazonia. Successful applicant will join a world class group of scientists at INPA and other Brazilian and international scientific institutions. The work will be carried out under the supervision of David Lapola (UNESP, Brazil) but also working closely with internationally recognised researchers, including Anja Rammig and Kirsten Thonicke (PIK-Potsdam, Germany), Prof Bart Kruijt (Univ. Wageningen, Netherlands), and other members from the Scientific Steering Committee such as Patrick Meir (University of Edinburgh, UK), Tomas Domingues (USP, Brazil), Rich Norby (ORNL, USA), Carlos (Beto)

Quesada (INPA, Brazil), Iain Hartley (University of Exeter, UK) and Jean Ometto (INPE, Brazil).

Applicants should apply by sending an email to contato.labterra@gmail.com before **October 3rd, 23:59 CET**, with subject line reading: "Post-doc application: AmazonFACE-modeling". This email should contain: a **1-page letter of interest** (indicating research interests related to the position), and a **biographical sketch (maximum of 3 pages)**, including education and professional career, list of 10 main scientific publications, and indication of the quantity of scientific papers, participation in research projects, conference presentations and students supervised if applicable). Selected applicants will be invited for an interview with project coordinators.

For further information please contact contato.labterra@gmail.com.