

## **PhD opportunity in ecohydrology and biofuel production in Brazil**

A PhD position is available with a large interdisciplinary research project that is examining the social, economic, and ecological implications of bioenergy development across the Americas: Argentina, Brazil, Mexico and the USA. Specifically, the student will work on the impact of palm plantations on ecosystem services in the Brazilian state of Para, focusing on water resources, by contrasting plant water use, soil water dynamics, and stand water balance in native vegetation and palm plantations. Specific techniques include sapflow, rainfall interception, and micrometeorological measurements. As part of this PhD position, there will be substantial opportunities to collaborate with other researchers with diverse backgrounds and expertise to conduct more integrated analysis of the impacts of bioenergy production on coupled water, carbon, and nutrient cycles within each of the study systems, and to assess effects of land use conversion on site water balance and water quality.

Candidates will require a strong analytical background and writing skills, and an ability to manage large data sets and supervise field assistants. Additionally, the prospective candidate should have demonstrated motivation and strong work habits, the ability to work independently as well as within a research group, and demonstrated potential to produce publications based on individual research. Preferred qualifications include experience with sap flow techniques, hydrometeorological measurements, and/or other field sensors for long-term monitoring of plant, soil, or water dynamics. However, for highly qualified candidates, training in these techniques will be provided as part of the PhD program. Proficiency in Portuguese and English is essential.

Depending on funding source for the position, there are opportunities to either complete the PhD in Brazil (at UNICAMP-São Paulo or UFPA-Belem), at the University of New Hampshire (USA), or a combination of both. There will be opportunities for networking with researchers from the USA, Brazil, Argentina, Mexico and Canada. There are no restrictions on nationality, and qualified candidates may apply from any country. This project is funded by NSF's Partnerships for International Research and Education (NSF-PIRE). Potential funding sources include FAPESP (São Paulo Funding Agency) and Brazilian Research Funding Agencies (CAPES and CNPq- Science without borders program).

There is some flexibility regarding where the position will be based, including the UFPA-Belem, UNICAMP-Sao Paulo, and the University of New Hampshire (USA). The PhD student will work closely with Drs. Rafael Oliveira (UNICAMP, Brazil), Heidi Asbjornsen (University of New Hampshire), Tom Pypker (Thompson Rivers University, Canada), Technological University), and Julian Licata (Concordia Research station, INTA, Argentina).

Consideration of applications begins immediately and will continue until the position is filled. Please send a cover letter that states your research interests and provides the names and contact information for three references, your curriculum vitae, and any other relevant materials by email to Dr. Rafael Oliveira: [rafaelsoliv@gmail.com](mailto:rafaelsoliv@gmail.com)