

TOP ESP – Spatial modelling of biophysical processes in tropical forests

13-14 novembro 2006

Status: eletiva

Créditos: 01

Carga horária: 15 h (8h teóricas + 7h práticas)

Professor Responsável

Mark Mulligan (King's College, Londres)

Ementa

The course is a practically based course which trains users to build and use spatial models for tropical forests focusing on simulating biophysical processes and their impacts on ecosystem services and on the generation and maintenance of biological diversity

Students will need a good knowledge of computing and a basic knowledge of GIS. No domain specific knowledge is necessary.

Day 1 Ecosystem services.

We will use the FIESTA spatial model (www.ambiotek.com/fiesta) to examine the role of forests in the provision of hydrological services. The model will be applied for the Andes-western Amazon area with a series of scenarios for land use and climate change in order to assess the impact of these on flows to the rivers of the western Amazon

Day 2 Biophysical controls on biological diversity

We will add components to an existing model for landscape controls on biological diversity in order to better understand the potential spatial distribution of biological complexity as a result of landscape complexity in the Amazon forests.

Each day will comprise a morning session of seminar and discussion concerning the topic and model followed by an afternoon practical session on using/developing the model.