JAMES RENNIE BEQUEST

REPORT ON CONFERENCE

Expedition/Project/Conference Title: European Geosciences Union, General Assembly 2006

Travel Dates: 02 – 07 April 2006

Location: ACV (Austria Center) Vienna, Vienna, Austria

Group Member(s): Timothy Hill

Aims: To expand to my of knowledge current work in the broad field of land-atmosphere interactions. Attending the conference also provided me with a very important opportunity to present my research work to a wider international audience, allowing new contacts with other researchers and groups to be formed.

OUTCOME (not less than 300 words):-

With financial support from the James Rennie Bequest I was able to attend the European Geosciences Union (EGU), General Assembly 2006, in Vienna. The EGU assembly is a gathering of several thousand international scientists consisting of over 10,000 contributions. The meeting covers a wide range of Geosciences, with sessions covering topics such as; Hydrological Sciences, Atmospheric Sciences and Biogeosciences. I presented a poster, based on some of my PhD work, as part of the Climate: Past, Present and Future session.

My PhD work focuses on land-atmosphere interactions on short time scales. Small changes in the biosphere (vegetation and soils) can have dramatic impacts on the exchange of CO_2, water and energy between the land-surface and the atmosphere. Feedbacks occur because these fluxes impact the dynamics of the atmosphere and consequently back onto the biosphere. Due to these feedbacks this topic bridges both ecological and atmospheric communities. Ecological and atmospheric modelling communities have inherent interest in each others work due to the mutual interdependence of the systems that they model. Despite this there remains a lack of models drawing on the expertise already held in each field. Models do exist which draw together biosphere and atmospheric components but at a low temporal and spatial resolution or with the inclusion of many simplifications. I presented a model which drew on the ecological expertise available in Edinburgh to couple a verifiable process-based biosphere model to a simple atmosphere model. This allows accurate assessment of the impact of processes within the biosphere on the coupled system as a whole.

The conference proved to be of great worth, allowing me to exhibit my work and attend many presentations on related subjects. I came away from the conference with many benefits and 'take home points':

1) Establishing links with Alan Betts, a key figure in my field. This was a key reason for attending the EGU and I managed to open up potential collaborations with him for future work.
2) The importance of good science. Whilst many of the talks discussed difficult, novel and excellent science, a substantial proportion of the presentations showed work which was badly presented and poorly analysed. I was surprised to see this standard of work appearing before an international audience. It highlighted the need for critical thinking and clear explanations, in order to allow science to have a real impact.
3) International meetings are excellent forums for increasing awareness of your work and finding out about other group's current research, paving the way for individual discussions.

4) Many related fields are operating in parallel without taking full advantage of each others advances. The conference allowed me to find out about other techniques and data sets, previously unknown to me, which are applicable to my studies.