

# JAMES RENNIE BEQUEST

## REPORT ON EXPEDITION/PROJECT/CONFERENCE

**Expedition/Project/**

**Conference Title:** International Botanical Congress 2011

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**Travel Dates:** 23<sup>rd</sup>-30<sup>th</sup> July 2011

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**Location:** Melbourne, Australia

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**Group member(s):** Alex Twyford

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**Aims:**

- 1) Present my research findings at a large international meeting
- 2) Attend oral presentations on plant hybridisation and next-generation sequencing
- 3) Meet fellow researchers for future collaboration

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### **OUTCOME (not less than 300 words):-**

The international botanical congress is the world's largest botanical meeting, taking place at different venues around the globe every 6 years. This meeting draws together such diverse fields as molecular genetics, ecology, biochemistry, taxonomy, palyobotany, modelling, plant conservation, bioinformatics and crop breeding, all under one roof. This year, the meeting took place at Melbourne Conference and Exhibition Centre, in Australia.

Prior to the main meeting, a subgroup of delegates gathered to discuss changes to the ways that we name and describe plant species. This group, along with representatives from research institutions that had voted in advance, decided to allow the electronic publication of new species descriptions, and that these could now be in English, rather than being accompanied by a Latin description. This historic change to plant taxonomy, a field that has traditionally resisted new developments, set the meeting in an exciting context.

The main part of the conference was structured so that keynote invited speakers were scheduled early in the day, and short parallel session of research presentations were held in the afternoon. I attended mostly talks on plant speciation, hybridisation, and the use of next-generation sequencing. One of the highlights was the 'Plant Speciation' keynote session, showcasing some exciting advances in our understanding of the ways in which new species are formed. This session included talks by Loren Rieseberg (given by one his postdocs, Rose Andrew, as he couldn't attend in person), Daniel Ortiz-Barrientos and Leonie Moyle. This session emphasised the importance of estimating the size and types of genes which make up 'genomic islands of speciation', areas of the genome that do not move between species in the process of hybridisation and are involved in maintaining species distinct identities.

I gave a presentation titled "Mechanisms of speciation and reproductive isolation in Central American Begonia" in the session "Neotropical Evolution: assembling the big picture". My talk focused on genetic analyses of hybrids between tropical Begonia

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species in Mexico, where the amount of hybridisation is typically limited to the first generation of hybrids (F1). My talk was well attended and well received, and a number of researchers that attended were keen to compare their results, and to collaborate on future research projects.

I would like to thank the James Rennie Bequest for contributing towards the cost of attending this exciting conference, and giving me the opportunity to present my research findings at a large international meeting.