

Summary:

- 1) TEG @ BES Annual meeting – REPORT & \*\*\*CALL FOR IDEAS\*\*\*
- 2) Understanding large scale ecological patterns and processes in the Amazon – NEXT EVENT 29<sup>th</sup> October
- 3) Southeast Asian gateway evolution – 1<sup>st</sup> announcement of meeting.
- 4) Research highlights from BES journals and TEG members

Please send me details of anything that you want included in next months bulletin!

Cheers

Will

**1) TEG @ BES ANNUAL MEETING (IMPERIAL COLLEGE LONDON)**

a) **Thematic session:** *"Integrating genetic and biogeographic research: the key to understanding diversity in the tropics?"*

Thursday 4 September  
Chair: Dr William Gosling

08:30 PENNINGTON, R. T. (Royal Botanic Garden Edinburgh, UK)  
***Using plant phylogenies to understand the historical assembly of tropical forests.***

Molecular phylogenies calibrated with a time dimension play a central role in understanding tropical biotic history. They indicate whether species diversity is ancient or recent, whether in-situ speciation or dispersal has dominated assembly of continental and local floras, and whether 'ecological' speciation between habitats has been a key evolutionary force.

09:10 WÜSTER, W. POOK, C.E. (Bangor University, UK)  
***Comparative phylogeography of African venomous snakes: is there a pattern?***

We compare phylogeographic patterns in eight widespread venomous snake species complexes from sub-Saharan Africa. The data on four forest and four open-formation taxa reveal a diversity of patterns and divergence times, as well as shared patterns, including high genetic diversity in southern Africa and extensive Pliocene diversification in open-formation clades

09:30 WALTON, C. (University of Manchester, UK)  
***Comparative phylogeography of forest-dependent mosquitoes in SE Asia.***

Comparative phylogeography of eight forest-dependent mosquito species has revealed patterns in the distribution of genetic diversity in mainland SE Asia involving allopatric fragmentation and population expansion. We conclude that forest contraction and fragmentation due to pleistocene climatic change is a major factor shaping the genetic diversity of forest taxa.

09:50 TOBIAS, J.A. SEDDON, N (University of Oxford, UK)  
***Avian diversity in the Neotropics: the role of genes, ecology and social selection.***

The recent proliferation of phylogenetic, ecological and biogeographical studies of tropical birds offers unparalleled opportunities for testing theory about adaptation and diversification. Drawing on comparative studies in Neotropical passerines, we discuss the roles of social and ecological selection in promoting adaptation, driving speciation and shaping patterns of species richness.

10:10 QUEENBOROUGH, S.1, VAMOSI, S.M.2, MAZER, S.J.3 (1 University of Sheffield, UK, 2 University of Calgary, Canada, 3 University of California, Santa Barbara, USA)

***Sex and Diversity: why do some tropical forests have so many dioecious species of tree?***

Dioecious species divide male and female function among individuals. Females in dioecious populations should exhibit fitness advantages to compensate for their reduced number. Here we compare population parameters of adult tree, seedlings and seeds from 14 large permanent forest plots to examine how dioecious species persist in these high-diversity systems.

10:30 TWYFORD, A.D.1, RICHARDSON, J.E.2 (1 Royal Botanic Garden Edinburgh, UK, University of Edinburgh, UK, 2 Royal Botanic Garden Edinburgh, UK)

***Biogeography of Rhododendron subgenus Vireya: a test of Wallace's Line.***

Rhododendron subgenus Vireya (Ericaceae) is widely distributed across the biogeographically interesting Malesian Archipelago. Dated molecular phylogenies based on multiple genes for Rhododendron support a Laurasian origin, and Wallace's Line can be tested. An emphasis is placed on the Philippines, with an interesting biotic affinity to neighbouring islands.

## **b) Group meeting**

The group meeting was attended by around 30 people, including 7 new members "WELCOME"! I reported upon the success of the Early Careers meeting in Oxford organised by Robi Bagchi and highlighted that next years meeting will be at Manchester Metropolitan University (30-31 March) and is being organized by Francis Brearley ([F.Q.Brearley@mmu.ac.uk](mailto:F.Q.Brearley@mmu.ac.uk)) and Jennifer Rowntree ([Jennifer.Rowntree@manchester.ac.uk](mailto:Jennifer.Rowntree@manchester.ac.uk)). Further details of this event will be sent out shortly.

I emphasized that suggestions for next years annual meeting thematic session need to be submitted before 10<sup>th</sup> October so they can be presented to the 'meetings committee' meeting later that month. ***So if you want to invite you favorite speakers to next years annual meeting please send me your ideas so I can endeavor to obtain funds from the BES!***

The final proposal that was placed to the meeting was regarding the group's leadership. It was agreed that I will continue to run the group for the next twelve months and then hand over to Simon Queenborough (University of Sheffield, [S.A.Queenborough@sheffield.ac.uk](mailto:S.A.Queenborough@sheffield.ac.uk)). Simon has been involved with the group for the last three years and is keen to take over. I plan to continue to be involved in the group beyond next year but other commitments (teaching) are increasing rapidly as I move towards the end of my academic fellowship so I feel that next year will be a good opportunity to hand over the reigns.

I think that during 2007-2008 the TEG has built upon the success of the previous year and that we are moving forward delivering opportunities for members of the tropical research community in the UK and abroad to integrate. This year, in addition to the annual meeting events and the early career researcher meeting we have obtained BES funds for students to attend the tropical plant identification course at Kew and sponsored the forthcoming workshop: ***"Understanding large scale ecological patterns and processes in the Amazon: opportunities for learning and knowledge transfer in UK research"*** being organized by Jos Barlow, Toby Gardner and Robert Ewers at the Natural History Museum London (October 29). To find out more contact Jos Barlow ([jos.barlow@lancaster.ac.uk](mailto:jos.barlow@lancaster.ac.uk)).

The activities which the TEG will engage with in 2008-2009 are very much down to YOU. The Early Career researcher meeting in March is starting to establish itself as a permanent fixture in

the calendar, but if YOU wish to put on a meeting, workshop or discussion session then let me know and the TEG may be able to help...

### c) Guided tour of the Herbarium Royal Botanic Gardens Kew

After the group meeting Jenny Rowntree lead a group to the Royal Botanic Gardens Kew. The guided tour by Gwil Lewis gave us the opportunity to explore the Queen Anne period house and view some of the seven million specimens. These included collections made by Charles Darwin during his visit to the Galapagos and the oldest herbarium specimen in the collection; from 1700 AD. The tour provided a fascinating insight into the role of the herbarium as a collection and a service to the scientific community. ***It is worth noting that increasing numbers of the herbariums collection are being digitised and can consequently be accessed anywhere in the world with an internet connection.*** Following the tour we had a cup of tea and discussed the relative merits and significances of the terms “Fabaceae” vs. “Leguminosae” before dispersing into the park to investigate the various gardens and glass houses. Unfortunately, due to time constraints, we were unable to visit much of the vast gardens, but I shall be making an effort to return soon to explore further.

Royal Botanic Gardens, Kew, Herbarium collection - <http://www.kew.org/collections/herbcol.html>

## 2) UNDERSTANDING LARGE SCALE ECOLOGICAL PATTERNS AND PROCESSES IN THE AMAZON: OPPORTUNITIES FOR LEARNING AND KNOWLEDGE TRANSFER IN UK RESEARCH

Natural History Museum  
29 October 2008  
BES/TEG sponsored event.

Contact Jos Barlow ([jos.barlow@lancaster.ac.uk](mailto:jos.barlow@lancaster.ac.uk)) for further details.

OUTLINE PROGRAM (subject to change)

Time	Names	Affiliation
08:30	Introduction	15
08:45	Carlos Peres	University of East Anglia
09:05	Richard Betts	Hadley Centre
09:25	Yadvinder Malhi	Oxford University
09:45	Oliver Phillips	Leeds University
10:05 Tea break 25		
11:00	Andrew Mitchell	Global Canopy Program
11:10	George Powell	World Wide Fund for Nature
11:20	William Milliken	Royal Botanic Garden Kew
11:30	Jos Barlow	Lancaster University
11:40	Patrick Meir	Edinburgh University
11:50	Emily Boyd	Oxford University
12:00	Richard Bodmer	Durrel Institute of Conservation and Ecology
12:10	Rob Ewers	Imperial College
12:20	Rosa Maria Roman Cuesta	Oxford University
12:30	Toby Gardner	University of Cambridge
12:40	Simon Queenborough	University of Sheffield
12:50	Luiz Aragao	Oxford University
13:00	Tim Baker	University of Leeds
13:10	Tor Haugaasen	University of East Anglia

13:20 Lunch

14:50 Doctoral students

15:50 Tea break

16:20 Overview

16:35 Discussion

18:00 Finish and wine reception

### **3) SOUTHEAST ASIAN GATEWAY EVOLUTION MEETING**

**14-17 September 2009: Royal Holloway University of London**

First announcement for an international meeting concerned with SOUTHEAST ASIAN GATEWAY EVOLUTION. This will be a multidisciplinary meeting focusing on the geological and biological history of the region around East Indonesia, and we invite contributions concerned with stratigraphy, tectonics, oceanography, climate, speciation and biodiversity.

<http://sage2009.rhul.ac.uk/>

### **4) HIGHLIGHTS FROM: BES JOURNALS AND TEG MEMBERS**

#### **a) Global change and biodiversity: future challenges**

Biology Letters special feature 2008

Organised by Phoebe Barnard and Wilfried Thuiller

**FREELY AVAILABLE online for THREE MONTHS**

<http://publishing.royalsociety.org/global-change>

#### **b) Journal of Animal Ecology**

The importance of environmental heterogeneity for species diversity and assemblage structure in Bornean stream frogs

Alexander Keller, Mark-Oliver Rödel, K. Eduard Linsenmair, T. Ulmar Grafe

<http://www3.interscience.wiley.com/cgi-bin/abstract/121358198/ABSTRACT>

Partial migration in birds: tests of three hypotheses in a tropical lekking frugivore

W. Alice Boyle

<http://www3.interscience.wiley.com/cgi-bin/abstract/120848032/ABSTRACT>

Dominant ants can control assemblage species richness in a South African savanna

Catherine L. Parr

<http://www3.interscience.wiley.com/cgi-bin/abstract/120775494/ABSTRACT>

#### **c) Journal of Applied Ecology**

Can oil palm plantations be made more hospitable for forest butterflies and birds?

Lian Pin Koh

<http://www3.interscience.wiley.com/cgi-bin/abstract/120120659/ABSTRACT>

Reserve effects and natural variation in coral reef communities

Alastair R. Harborne, Peter J. Mumby, Carrie V. Kappel, Craig P. Dahlgren, Fiorenza Micheli, Katherine E. Holmes, James N. Sanchirico, Kenneth Broad, Ian A. Elliott, Daniel R. Brumbaugh  
<http://www3.interscience.wiley.com/cgi-bin/abstract/120120658/ABSTRACT>

Structure and conservation of Sri Lankan land-snail assemblages in fragmented lowland rainforest and village home gardens

D. C. Raheem, F. Naggs, R. C. Preece, Y. Mapatuna, L. Kariyawasam, P. Eggleton  
<http://www3.interscience.wiley.com/cgi-bin/abstract/120120647/ABSTRACT>

Diversity, invasive species and extinctions in insular ecosystems

C. Josh Donlan, Chris Wilcox

<http://www3.interscience.wiley.com/cgi-bin/abstract/120120656/ABSTRACT>

Managing beyond the invader: manipulating disturbance of natives simplifies control efforts

Jennifer Firn, Tracy Rout, Hugh Possingham, Yvonne M. Buckley

<http://www3.interscience.wiley.com/cgi-bin/abstract/120696198/ABSTRACT>

Conversations in conservation: revealing and dealing with language differences in environmental conflicts

Thomas J. Webb, Dave Raffaelli

<http://www3.interscience.wiley.com/cgi-bin/abstract/119880383/ABSTRACT>

Exploring reservoir dynamics: a case study of rabies in the Serengeti ecosystem

Tiziana Lembo, Katie Hampson, Daniel T. Haydon, Meggan Craft, Andy Dobson, Jonathan Dushoff, Eblate Ernest, Richard Hoare, Magai Kaare, Titus Mlengeya, Christine Mentzel, Sarah Cleaveland

<http://www3.interscience.wiley.com/cgi-bin/abstract/120120645/ABSTRACT>

Spatio-temporal trends in tree cover of a tropical mesic savanna are driven by landscape disturbance

Caroline E. R. Lehmann, Lynda D. Prior, Richard J. Williams, David M. J. S. Bowman

<http://www3.interscience.wiley.com/cgi-bin/abstract/120748159/ABSTRACT>

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PALAEOECOLOGY AT THE OU

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