

SYMPOSIUM 1: PAST, PRESENT, AND FUTURE OF TROPICAL ECOSYSTEMS

Bonito, 19th June 2012 (Tuesday)

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Kathy Willis (University of Oxford, UK)

Richard Oslisly (IRD, Cameroon)

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This interdisciplinary symposium covers worldwide tropical forest fragmentation history. Tropical forest resources are generally associated with the monsoon climatic system which guarantees agriculture feeding a significant part of the world's population. The effect of climate change on the monsoon seasonal cycle such as alterations in water cycle will put a threat on the populations of the emergent countries (IPCC, 2007). In addition practices of intensive exploitation of soils, water and forests contribute to accelerate the destruction of these natural resources and strongly questioned the traditional agricultural practices in front of modern strategies of intensive monoculture. For instance, though it is difficult to quantify the extent to which palm oil has been a direct cause of deforestation, demand is predicted to continue increasing and globally, most of the remaining areas suitable for planting are forested (Fitzherbert et al., 2008). However our knowledge on both regional history of the traditional culture crops (invasive species, resilience, resistance) and the physiological needs for cultivated plants is poor. This is a key issue to characterize their responses to both man and climate pressure as well as estimating the future impacts on human health, society and the environment. The objectives of this session are to use the past as a key to the future by reconstructing and comparing the variable response (e.g. adaptation abandonment) of cultural, technological and agriculture practices within the tropical forest belt to climate change and by assessing the impact of environmental change on food production and health. This symposium will promote discussion on advances and current issues on methods and tools (archeobotany i.e. starch grains, archaeology, new stable isotope proxies...) for reconstructing environmental, climatic and cultural changes and regional synthesis of history, science and cultural interpretation during the last millennia.

TALKS (Room Kadiwéu 1, 09h00-12h30)

09h00-09h15 (S01.CO.01) **Last millennia of the tropical moist forest of Central Africa: forest or savanna?** *Ilham Bentaleb*

09h15-09h30 (S01.P.09) **History of paleofires associated with past human disturbances in the lowland semi-deciduous forests of Central Africa.** *Jean-François Gillet*

09h30-9h45 (S01.CO.03) **Human impact on the west central Africa rainforest during the last 3000 years.** *Richard Oslisly*

09h45-10h00 (S01.CO.04) **Land change in Colombia: a multi-scaled analysis between 2001 and 2010.** *Ana Maria Sanchez*

10h00-10h15 (S01.CO.05) **Cenozoic imprints on the phylogenetic structure of palm species assemblages in the New and Old World.** *Daniel Kissling*

10h15-10h30 (S01.CO.06) **Predicting biome distribution responses to climate change: implications of savanna and forest as alternative stable states.** *Ann Carla Staver*

Coffee Break

- 11h00-11h15 (S01.CO.07) **Tropical forest effects aquatic ecosystem structure and function in Borneo.** *Catherine Yule*
- 11h15-11h30 (S01.CO.08) **Reaching the forest canopy: towards mechanistic models for vascular epiphyte dynamics.** *Gunnar Petter*
- 11h30-11h45 (S01.CO.09) **Tropical forest carbon balance in a warmer world: a critical review spanning microbial- to ecosystem-scale processes.** *Tana Wood*
- 11h45-12h00 (S01.CO.10) **Soil physical and chemical characteristics affect the structure and composition of secondary forests on Amazonian anthropogenic soils.** *André Junqueira*
- 12h00-12h15 (S01.CO.11) **Comparative chloroplast DNA phylogeography of four tree species in western Amazonia.** *Euridice Coronado*
- 12h15-12h30 (S01.CO.12) **Management, drought, and fire interact to pre-adapt an Eastern Bolivian forest to disturbance.** *Alexander Shenkin*

POSTERS (Karuha Space, 15h30-16h30)

- S01.P.01. **Intercontinental spatiotemporal variations in tropical tree mortality regimes.** *Nicoline Groot*
- S01.P.02. **Species spectral signature: a new tool for discriminating species in the Amazon.** *Flávia Durgante*
- S01.P.03. **The carbon balance of a rubber plantation in tropical China.** *Qinghai Song*
- S01.P.04. **Fossil and modern pollen from Madeira river basin in the area of influence of the Ahe Jirau, Rondonia State – Brazil.** *Maria Ecilene Nunes da Silva Meneses*
- S01.P.05. **Spatial heterogeneity of soil respiration in a 20-ha tropical rainforest plot.** *Yi-Ping Zhang*
- S01.P.06. **Vegetation, biodiversity, fire and climate dynamics in tropical and subtropical South American ecosystems during the late Quaternary.** *Hermann Behling*
- S01.P.07. **Biodiversity partitioning of tropical ant communities: comparing savanna and rainforest in Brazil and Indonesia.** *Fernando Augusto Schmidt*
- S01.P.08. **Palynological study of Holocene sediments from Bananal island, Tocantins State - Brazil.** *Maria Ecilene Nunes da Silva Meneses*
- S01.P.10. ***Pericopsis elata* (Harms) Meeuwen in Cameroon: ecological check-up of an endangered timber species.** *Jean-François Gillet*
- S.01.P.11. **Multi-scales factors effects in ant diversity.** *Fernando Augusto Schmidt*
- S.01.P.12. **Factors driving altitudinal richness gradients of plant species in tropical mountains.** *Juliano Sarmiento Cabral*