

**SYMPOSIUM 20: TREE RINGS AND CLIMATE CHANGE IN THE TROPICS:  
PROGRESS OVER THE LAST DECADES**

**Bonito, 22<sup>nd</sup> June 2012 (Friday)**

**Jochen Schöngart** (Max Planck Institute, INPA, Brazil)

**Roel Brienen** (University of Leeds, United Kingdom)

**Gregório Cardoso Tápias Ceccantini** (University of São Paulo, Brazil)

Tree ring analysis is a powerful technique to study responses of trees to climate variation or reconstruct past climate conditions. While tree ring studies have traditionally focused on temperate regions, the number of studies on tree rings in the tropics has increased strongly over recent years and some important advances have been made in tropical dendrochronology. This increase is largely driven by the need to improve our knowledge on tropical tree responses to climate change over longer time periods (including pre-industrial times), and the need for palaeoclimatic proxies from the tropics. In this session, we intend to bring together researchers working with tree ring in the tropics and to provide an overview of the latest developments and challenges in this exciting research field. The focus will be primarily on tree ring studies in tropical lowland areas. Topics may include studies on tree responses to climatic variation and to atmospheric CO<sub>2</sub>, on the use of tropical tree rings as proxies for palaeoclimatic reconstructions, and on new developments and techniques in this area such as isotopes in tree rings (d<sup>18</sup>O, d<sup>13</sup>C and d<sup>15</sup>N), intra-annual variation in wood density, etc.

**TALKS (Room Kadiwéu 1, 09h00-12h30)**

09h00-09h15 (S20.CO.01) **Tropical dendroclimatology for the past Millennium.** *David Stahle*

09h15-09h30 (S20.CO.02) **Understanding causes of changed tree growth after gap formation: δ<sup>13</sup>C-values in tree rings reveal a predominant effect of light.** *Peter van der Sleen*

09h30-09h45 (S20.CO.03) **Dendroclimatological aspects of *Calophyllum brasiliense* Cambess. (Calophyllaceae) in different wetland forests of Brazilian ecosystems in the savanna and tropical rainforest.** *Sejana Artiaga Rosa*

09h45-10h00 (S20.CO.04) **Age cohorts of trees in a tropical forest reveal the disturbance history.** *Mart Vlam*

10h00-10h15 (S20.CO.05) **Dendroecology and X-Ray densitometry in *Pachira stenopetala*, Caatinga of Sergipe/BR.** *Claudio Anholetto*

10h15-10h30 (S20.CO.06) **Ancient trees in Amazonian floodplains: implications for tropical forest ecology and climate change.** *Jochen Schöngart*

***Coffee Break***

- 11h00-11h15 (S20.CO.07) **Dendrochronological analysis of *Fokienia hodginsii* and drought dynamics in Vietnam.** *Dario Martin-Benito*
- 11h15-11h30 (S20.CO.08) **Nitrogen isotopes in tree rings indicate changes in tropical nitrogen cycle.** *Peter Hietz*
- 11h30-11h45 (S20.CO.09) **What tree ring studies can and cannot tell us about tropical tree responses to climate change.** *Pieter Zuidema*
- 11h45-12h00 (S20.CO.10) **Dendroecology of two tropical vicariant species from a vegetation mosaic.** *Giuliano Maselli Locosselli*
- 12h00-12h15 (S20.CO.11) **Are oxygen isotopes in Amazon tree rings a good proxy for Amazon rainfall?** *Roel Brienen*
- 12h15-12h30 (S20.CO.12) **The urge to use dendrochronology as tool for conservation policies of tropical trees.** *Gregório Ceccantini*

**POSTERS (Karuha Space, 15h30-16h30)**

- S20.P.01. **Potential of the Meliaceae to dendrochronology and dendroecology, with emphasis on *Cedrela*.** *Mario Tomazello Filho*
- S20.P.02. **Application of species modeling to improve dendroclimatological studies in the tropics.** *Patricia Mattos*
- S20.P.04. **ENSO-sensitive proxy based on high-frequency densitometry of *Manilkara huberi* (Sapotaceae) a characteristic tree species from the Central Amazon rainforest.** *Luis Antônio de Araújo Pinto*
- S20.P.05. **Effects of the rainy season on growth of *Mimosa tenuiflora* in dry tropical forest, Brazil.** *Patricia Mattos*
- S20.P.06. **Divergent growth responses to water availability may explain the coexistence of tree species in Bolivian tropical dry forests.** *Robin Corrià Ainslie*
- S20.P.08. **Growth rings in deciduous tree species from northern Minas Gerais, Brazil.** *Tayrine Vieira Martins*
- S20.P.09. **Pan-tropical tree ring research: detecting long-term effects of climate change on tropical forest growth.** *Peter Groenendijk*
- S20.P.10. **Contrasting the association of tree ring series from two tropical dry season-deciduous species: *Intsia bijuga* from Madagascar and *Enterolobium cyclocarpum* from Costa Rica, with yearly.** *Roland de Gouvenain*