

## WOOD ANATOMY NEWS

### Request for *Dalbergia* wood samples

Jorgo Richter (Jorgo@baric.de) from the Institute of Wood Biology, Hamburg, requests wood samples or off-cuts of three *Dalbergia* species from Central America recently put on CITES Annexes II or III: *D. calycina*, *D. dariensis* and *D. glomerata*. Dr. Richter needs this material to update the CITESwoodID database maintained in Hamburg, and made available to the wood trading and wood science community as a very user-friendly identification tool. Duplicate slides will be the reward for the generous provider of wood samples of these rare and endangered *Dalbergia* species.

### Report from the Afro-European IAWA-REDD<sup>+</sup>-IUFRO Meeting in Tervuren

In an international symposium of wood science, with an African-themed focus on tropical forest ecology and management, a total of 119 participants representing 24 nations turned up to bring to the fore and enlighten us with new and important insights into the field of wood structure and function. Marc De Meyer, Head of the Biology Department of the Royal Museum for Central Africa, eloquently opened the show with further briefs and introductory words by Hans Beeckman, Maaïke De Ridder and, to complete the introduction, a combination of Frederic Lens and Pieter Baas, with the latter's wonderful booming voice giving us the lowdown on the latest IAWA news.

The conference commenced with Elisabeth Wheeler delivering the merits of her brainchild InsideWood, a database that can contribute enormously to scientists in this field, especially when in knowledge of all its functions. The day continued with various talks on wood identification, an especially important field that is undergoing changes with the advancement of molecular identification. However useful this is, and it is useful, I feel that it can never entirely replace the 'microscope' and expert anatomists such as Peter Gasson. Both will complement each other, I am sure.

Tuesday's session commenced with biosphere traits, focussing on the functional traits of wood both of conifers and angiosperms, and of ferns. A session on policy began with a large focus on REDD<sup>+</sup> demonstrating the challenges that lie ahead to reduce carbon emissions in developing countries and, of course, the importance of CITES, and also the hurdles that have to be overcome with implementing policy for integrating landscape approaches, particularly in the Democratic Republic of Congo. Things are moving forward, but slowly. The day ended with a wonderful icebreaker and dinner, which was a chance to integrate and meet fellow scientists and, in many cases, putting a face to the publication.



Group photo of the delegates in the grounds of the Africa Museum, Tervuren.

On Wednesday we had various very compelling talks on the functional traits of wood, which began with a keynote and general synopsis of past studies by Pieter Baas. Particularly interesting for me was Kathy Steppe's presentation showing just about every instrument you can find in order to observe the ongoings in a tree. On a comical note, with regards to Nigel Warwick's very interesting talk on the structural diversity of Australian *Acacia* spp. (the 'now' only true acacias!!) was Peter Gasson's ingenious contribution, "Wattle we do next?", since both of them, as Nigel remarked, shared a similar sense of humour, though perhaps not as well received by the general audience. Such are the subtleties of the British/Australian humour! The afternoon, after a well-earned coffee break, for speakers of course, brought the poster presentations. A great idea was conceived to allow the presenters to give a very brief synopsis, all of two minutes, about their poster from the podium. That evening, we all got together at the Colonial Palace for eating and drinking, and for the presentation of the Bailey award to Dr Alex Scholz, the first recipient 'ever' of the best student publication in an IAWA Journal. Unfortunately some of us had to leave early, as those lucky ones who had paid for their 5 course meal, snubbed us and moved proudly to their place at the table.

Thursday brought a splendid session on tree-ring analysis, with Martin Worbes setting the tone. From isotopes to cambial markings, all kinds of methods to age trees were discussed. Before embarking on our day trip, Aster Gebrekirstos closed the session by highlighting the paucity of research carried out on African trees, while trying to, I hope successfully, persuade listeners to come together, join, and help develop the African Tree Ring Society, a mission I am sure will come into fruition.

The weather was kind and remained dry throughout our field trip. The group was divided into two. My group stopped off at the Arboretum Tervuren, a nice collection of trees. There was a particularly large *Abies procera* with a remarkably untapered stem, typical of the species. This was one of the lucky ones that withstood a particularly vicious storm in the rolling landscape park founded by King Leopold II in 1902. We then exchanged with the other group and visited the Colonial Palace grounds, with a break at an old restored oak laden mill.

It all ended on Friday, with further inspiring sessions on tree-ring analysis and on density variations and carbon stocks. Thought-provoking hypotheses by Peter Zuidema on upward spiralling selection for faster tree growth, and Tomasso Anfodillo on modelling whole forest ecosystems around tapering hydraulic conduits, nicely complemented successful reports on dendroclimatology of the miombo woodlands (Valerie Trouet and Ezekiel Mwakulukwa) and stunning technological possibilities of X-ray CT densitometry presented by Jan van der Bulcke and Tom de Mil (remember those names for future breakthroughs!). In the closing session Hans Beeckman illustrated his credo for better conservation and forest management with a beautiful wood carving of a Congolese figurine – acknowledging the human dimension of all our endeavours concerning tropical forests.

I would like to thank Hans Beeckman and Maaike De Ridder and their complete team for arranging such a marvellous and worthwhile symposium. I would also like to thank the catering staff for the great food and coffee throughout the event. A special thanks of course to the participants, both speakers and poster makers. This array of valuable insights into the field of wood structure and function should allow new collaborations to form and ensure that this discipline keeps on thriving.

Hugh Morris, Ulm, Germany

### **Wood and Bark Anatomy at MicroMorph Course in Harvard**

An international summer course on Plant Anatomy, Development, Functions, and Evolution hosted by the Arnold Arboretum was taught in the last two weeks of July to a dedicated group of eleven advanced students of seven nationalities. Two weeks of intensive lecturing and lab practicals comprehensively covered the primary plant body (with William Friedman and Pamela

Diggle as inspiring instructors) and the secondary plant body (by Pieter Baas, Peter Gasson and Elisabeth Wheeler). The IAWA Hardwood and Softwood Lists, InsideWood (<http://insidewood.lib.ncsu.edu>), as well as the draft IAWA List of microscopic Bark Features (to be published in 2016) were used to streamline the teaching of wood and bark anatomy. It is gratifying that this international course, funded by NSF, clearly meets a need felt by many students and young scientists. Over 70 had applied, but positions in the course were limited to a small number of students only. Teaching wood and bark anatomy within the grounds of one of the world's finest and most beautiful Arboretums, and at an institution where I.W. Bailey, M.H. Zimmermann, R.H. Wetmore and E.S. Barghoorn had made their groundbreaking contributions to wood anatomy was a most inspiring experience.



The MicroMorph students and their instructors (photo by Jessica Gard).

### **Successful World of Wood Meeting at Penn State University**

The joint meeting of the International Wood Collectors Society (IWCS) and IAWA from 20 through 23 July at Penn State University turned out to be a great success. About 80 delegates could enjoy a diverse lecture programme or take part in alternative activities such as excursions, wood turning demonstrations, and the traditional IWCS auction of wood specimens and books.



From left to right: Local organiser Chuck Ray, IAWA representative Pieter Baas, and IWCS President Elaine Hunt propose a toast at the IAWA reception in the Day's Inn, State College, Pennsylvania.

All was well organized by local host Dr. Chuck Ray and his team from the Forest Resources Department. In depth review papers were presented on alternative and novel methods of wood identification, conservation of tree species and forest ecosystems, wood collections, history of wood science, the rosewoods, woods used in American antique furniture, wood in archeology, paleoecology, and highly patterned woods caused by burls and gnarls. I want to single out two presentations for special mention: Elisabeth Wheeler's double bill on microscopic wood identification using the InsideWood web-database and enthusing wood collectors with the beauty and information content of wood microstructure, and Jean-Claude Cerre's demonstration via skype of his craft of wood macrophotography using superbly polished transverse and longitudinal wood surfaces, that allow high resolution observations at the microscale. Although IAWA members numbered less than a fifth of the delegates, their contribution to the presentations dominated the programme, and were much appreciated by the IWCS membership. IAWA's contribution to the reception in the Day's Inn of State College on the opening day of the conference was equally appreciated. About 60 IAWA Journal supplements and special issues were sold, and more or less covered the cost of the beverages. Pieter Baas

### **Second meeting of the IAWA China Group**

The second annual meeting of the IAWA China Group – meanwhile numbering over 80 members – will take place on 1 and 2 November 2015 at the Chinese Forestry Academy in Beijing. The programme includes: developments in wood anatomy in China and overseas, wood biology, wood identification, wood in archaeobotany, and discussion of difficult problems in wood identification. For further information please contact Dr. Zhai Shengcheng (zhai\_sc@hotmail.com).

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