PhD thesis on Tension wood and Tension bark

On October 17, 2017, IAWA Member Barbara Ghislain successfully defended her PhD thesis on anatomical diversity and efficiency of tension wood in tropical trees at the University of French Guyana. Part of Barbara's thesis, supervised by Bruno Clair, was published in the IAWA Journal this year (vol. 38: 245–265). The textbooks on tension wood will need to be rewritten, because Barbara found that in tropical trees the majority of species have tension wood with lignified instead of unlignified "gelatinous" layers, and there is even a significant number of angiosperm trees without any tension wood at all, which generate their "motor power" to straighten young stems and maintain branch wood angles with tension bark. Studies on this fascinating reaction bark in tropical trees is now being continued by postdoc Romain Lehnebach in Kourou, French Guyana.

Pieter Baas, Netherlands

A New Plant Anatomy Lab Established in Madagascar in 2017

A new plant anatomy laboratory was recently established at the University of Antananarivo Madagascar. This lab is fully operational and now we are working on the establishment of a fully documented reference collection of *Dalbergia* and *Diospyros* of Madagascar. The first anatomical atlas of these species was already published by Springer this year. We are working to analyze more duplicates per species and more species to complete the previous work to validate the proposed identification key.
If you need additional information, please contact Dr. Harisoa Ravaomanalina:
harisoa.ravaomanalina@gmail.com
https://www.facebook.com/368062966397/photos/a.376401216397.158172.368062966397/10154488434736398/?type=3&theater.

Harisoa Ravaomanalina, Madagascar

Charcoal Identification Asks for Help

Recently a new challenge has come forward for the wood identification activities of charcoal. The charcoal (for barbecue) in Germany is in much demand and the declaration on the bag often does not coincide with its contents. After checking the contents of some bags, it was concluded that in the majority of the cases considerable numbers of tropical timbers were in the bags. While checking numerous pieces of charcoal, we observed some astonishing anatomical details not attributable to any of the known tissues making part of the complex structure of wood. The image of the tangential section was taken with a "3D-reflected-light microscope", an excellent means of studying the surfaces of pieces of charcoal. A number of circular to oval openings were observed.

Our intent in publishing these images in the IAWA Newsletter is to ask whether you have any suggestions as regards the nature of these structures. Please send your ideas to Dr. Hans-Georg Richter (hans.richter@thuenen.de) of the Thünen-Institute of Wood Research, Hamburg.

Hans-Georg Richter, Germany