



topic to which dendroecology has provided a lot of important results. Thus, in several key note lectures, dendrochronology had often been mentioned as an important methodology for gaining exact dating control or as a source of information in glaciology, climatology or geomorphology during this and former meetings of this congress series. However, during the Berne congress 2003, the first session dealing exclusively with tree rings was held – something that is self-evident for the Annual Meetings of American Geographers, but which an innovation is for the Deutsche Geographentag.

The session was organized by Dr. Achim Bräuning and Dr. Jan Esper. The selected speakers of the session dealt with dendroecology in many aspects of application, like the use of stable isotopes (Dr. Kerstin Treydte), glaciology (Prof. Dr. Kurt Nicolussi), climatology (David Frank, Joachim Block, Prof. dr. Uwe Treter). Thanks to the financial support of the organizing committee, Dr. Ram Ratan Yadav from the Birbal Sahni Institute of Palaeobotany in Lucknow (India) could be invited to report about dendroclimatic evidence on climate change in the Himalaya.

The session was attended by about 50 geoscientists and hopefully contributed to further deepen the awareness of the great potential of tree rings as a source of information on environmental change.

Series: Tree-Ring Labs in Europe

In this regular column we introduce tree-ring labs all over Europe. Doing so, we hope to encourage contacts and scientific exchange between different working groups and laboratories. We also offer a platform for younger, smaller or specialised laboratories to make themselves known within the scientific

community. The short articles should contain information about specific interests and competence, laboratory facilities and staff, ongoing projects and training and education activities. Contributions are welcome and should be sent to A. Bräuning.

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The Laboratory for Wood Biology and Xylarium in Tervuren, Belgium

Hans Beeckman, Valerie Trouet, Anouk Verheyden, Kristof Haneca



The Laboratory for Wood Biology is one of the research units of the Royal Museum for Central Africa in Tervuren, Belgium. The objectives of the laboratory are related to scientific research in the field of wood biology, particularly wood anatomy and dendrochronology. The research activities are focussed on Sub-Saharan Africa, but contractual research and public scientific services are not limited to Africa.

Additionally, the laboratory manages the Tervuren Xylarium, a scientific reference collection of wood samples (57.000 specimens from 13.000 species from all over the world).





Equipment:

Wood processing workshop
 Chemical laboratory with Reichert and Microm sledge microtomes
 Microscope laboratory with two Olympus research microscopes (BX60), one Olympus research stereomicroscope (SZH10), and several routine microscopes.
 Two LINTAB measuring stages with TSAP software
 Resistograph
 AnalySIS image analysis software
 Analogous and digital camera's

Fields of activity:

Dendrochronological methods are used to:

- investigate the climatic signal in woodland trees in Southern and Southeast Africa,
- study the driving variables for growth of mangrove trees,
- develop sustainable management tools for West and Central African forests,
- study the material culture in Flanders (e.g. Brabantian altar pieces).

In the field of wood anatomy, projects include:

- The comparative anatomy of wood for plant systematics
- Anatomical evaluation of the quality of coniferous wood
- Ecological wood anatomy for subtropical Africa
- Microphotography of commercial wood species

Staff:

Hans Beeckman, senior scientist
 Kristof Haneca, PhD student (Ghent University)
 Valérie Trouet, PhD student (Catholic University of Leuven)
 Anouk Verheyden, PhD student (VUB – Free University of Brussels)

Ongoing projects:

- The ENSO (El Niño Southern Oscillation) effect in Southern Africa: dendrochronology and phenology of the miombo woodland (Valérie Trouet & Hans Beeckman), in collaboration with the Laboratory for Forest, Nature and Landscape Research of the Katholieke Universiteit Leuven (KUL) for the remote sensing part.



Sampling in Zambia

- Driving variables for the cambial activity of mangrove trees (Anouk Verheyden & Hans Beeckman), a cooperation between the VUB (Free University of Brussels) (stable isotope analysis, time series analysis and physiology) and the Royal Museum for Central Africa (anorganic chemistry and wood analysis).

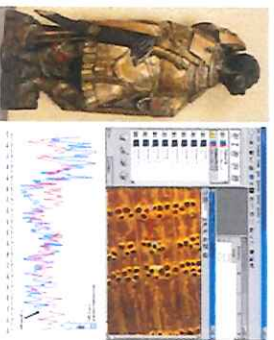


Cambial marking of Rhizophora

- Analysis of wood and dendrochronological dating of Brabantian altar pieces (Kristof Haneca & Hans Beeckman), a collaboration with VUB



for the art historical part and UG (University of Gent) for wood technology



Databasing of
tree ring
patterns of
Medieval
sculptures

- Sustainable management of West and Central African forests (*Hans Beeckman*). A network is being established to support African research institutes that use tree ring analysis to develop plans aiming at sustainable forest management. Tree ring laboratories are being equipped in Senegal and Côte-d'Ivoire and staff trainings are being organised.

Teaching:

- Lectures on wood biology are occasionally given to university students and groups of interested people.
- Intensive training courses in tree ring analysis and wood anatomy are given to visiting African scientists.

Selected publications:

BEECKMAN, H. & VANDER MUNSBRUGGE, K. (1993). Redundancy analysis and the evolutionary learning algorithm as complementary mathematical processing tools for dendrochronological data sets. *Silva Gandavensis* 58: 101-113.

BEECKMAN, H. (1993). Tree ring analysis as an ecological tool: a review of dendrochronological variables. *Biologisch Jaarboek Dodonaea* 61: 36-56 (27/6/1994).

KITIN, P., FUNADA, R., SANO, Y., BEECKMAN, H. & OHTANI, J. (1999). Variations in the Length of Fusiform Cambial Cells and Vessel Elements in *Kalopanax pictus*. *Annals of Botany* 84, NE 5: 621-632.

TROUET, V., HANECA, K., COPPIN, P. AND BEECKMAN, H. (2001). Tree ring analysis of *Brachystegia spiciformis* and *Isobertinia tomentosa*: evaluation of the ENSO-signal in the miombo woodland of Eastern Africa. *IAWA Journal*, 22(4): 385-399.

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ATR membership and fees

Membership application forms can be filled in online via the homepage of the ATR (<http://www.iahrring.de/> or <http://www.tree-ring.org/>).

The annual membership-fee is **€ 50,-- for full members** and **€ 20,-- for students** (attestation required).

During the last annual meeting in Utrecht, some members have brought up the point if the membership fee could be reduced. The executive board has carried out the following calculations:

- the organization and implementation of the annual meetings requires about 6000,-- €, the printing costs for the TRACE volume amounts to roughly to 2000,-- €. The benefits for members include:

- regular information by round mails and by the ATR newsletter on interesting news concerning dendrochronology and ATR
- drastically reduced subscription rates for the tree-ring journal DENDROCHRONOLOGIA
- reduced fees for the TRACE meetings