



Newsletter of the Association for Tree-Ring Research

No. 5, December 2005

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**TRACE 2005 in Fribourg**

By Ingo Heinrich

Between 21 and 23 April 2005, the TRACE 2005 (Tree Rings in Archaeology, Climatology and Ecology) conference took place at the Department of Geography, University of Fribourg, Switzerland. The organisers Ingo Heinrich and Michel Monbaron felt honoured to welcome approximately 100 dendroids from 25 countries to Fribourg. Many of the participants took the chance to display a wide range of topics stretching from dendroclimatology to dendrogeomorphology in form of 32 oral presentations and 30 posters. Some of the studies originated from exotic parts of the World such as Iran or Australia and enriched the contents of the conference normally centred on European topics.

The program, short abstracts of talks and posters, and other details can be viewed at: <http://www.unifr.ch/geoscience/geographie/Trace/TRACE2005Homepage.html>

From the convenor's perspective the conference was the absolute highlight for the department and tree-ring laboratory since the foundation of the lab some five years ago. To give the conference an additional thrill we had the idea to invite someone from outside the dendrochronology community but a related field to be the invited speaker. We were lucky enough to win Erica Hendy, a Comer Abrupt Climate Change Post Doctoral Research Fellow at the Lamont-Doherty Earth Observatory (USA), to speak about her work on corals from the Great Barrier Reef used for palaeoclimatology. It was very interesting to learn that she was the first to apply our dendrochronology methods to corals, hence the title of her talk "Dendroclimatology underwater: Australian coral records from 1565 AD" was very appropriate.



Audience at TRACE 2005 (Photo: A. Bräuning)

During the conference the second ATR-poster award was granted. Fritz Schweingruber, Uwe Treter and Kerstin Treydte were selected to act as the jury. It happened to be not an easy task because of the large amount of posters and the generally high quality. Finally, the jury decided to grant the award of 150 SFr to the author Anne Verstege from the WSL, Switzerland for her poster titled "Assessment of density data from Morocco". Congratulations!

4th Annual Meeting of ATR 2005

By Achim Bräuning

The annual membership meeting of ATR was held during the TRACE 2005 meeting in Fribourg, Switzerland. 32 ATR members attended the meeting. At the beginning Heinrich Spiecker, the President of ATR, gave an overview of the activities of the executive board since the last annual meeting in Birmensdorf in April 2004

After the report of Holger Gärtner about the present financial status of ATR, the further development of the ATR homepage was discussed (see detailed report below).



The next TRACE volume will also be published in the series of the research centre in Jülich. Only black and white figures can be reproduced. The volume will be automatically distributed to all ATR-members after payment of the annual membership fee.

The location of the next TRACE-meeting was determined to be in Tervuren, Belgium (see announcement below). Finally, the exoneration of the executive board was decided unanimously by all attending members.

Announcement of the TRACE 2006 conference and annual meeting of the ATR members in Tervuren (Belgium)

TRACE 2006 will be held on April 20-22 at the Laboratory for Wood Biology and Xylarium, Royal Museum for Central Africa (RMCA), Leuvensesteenweg 13, 3080 Tervuren, Belgium. Organizing committee: Hans Beeckman & Anouk Verheyden

Information and registration:
<http://trace2006.africamuseum.be>

The TRACE conference seeks to strengthen the network and scientific exchange of scientists and students involved in the study of tree rings. This annual conference is an initiative of the 'Association for Tree-Ring Research' (ATR).

As with past conferences, we especially aim to give young scientists and students the opportunity to present concepts, ongoing and finished work. The scope of the meetings includes all fields of dendroecology, such as tree rings and archaeology; climate; geomorphology; glaciology; fire history; hydrology; physiology; stable isotopes;

Beside the presentation sessions, the performance of separate discussion forums that are dedicated to different topics of tree-ring research is planned. ATR members can already now express their interest for certain subjects of these forums by sending an E-mail to the organisers.

Following the (informal) tradition of the last TRACE meetings, we hope to have a relaxed atmosphere to enable many discussions, exchange of knowledge, fruitful new contacts and possible collaborations.

During the symposium, the annual meeting of ATR will be held. A detailed agenda for the meeting will be distributed later by E-mail, but one of the topics will be the election of a new executive board, since the two-year legislative period of the present board will end in April 2006. ATR members might already now consider if they might be interested to run for one of the board positions as President, Vice-President, secretary or treasurer.



Development of the ATR-Homepage

<http://www.tree-ring.org/>

<http://www.jahrring.de/>

By Holger Gärtner

Like announced in the last newsletter we started a new site "locations (Standorte)" where we use maps (worldwide and Europe) to illustrate the location of members and associated laboratories.

Recently we linked a more detailed database to the map. While placing the cursor on the red points on the single maps, a window appears showing the names and institution of related members.

By clicking on the red points, you will receive a window showing all data of the single members that are stored in our database (data entered by the members while registering).

At the lower most part of these specific windows each member has the opportunity to change the details of their own data by logging in to the database. You can even add a photo to this page.

By now, all members are responsible by themselves to update the information of the site. The French and Spanish version of the website will be available soon



Series: Tree-Ring Labs in Europe**The Laboratory of Dendrochronology at the University of Forestry in Sofia**

By Momchil Panayotov

The Laboratory of Dendrochronology is based at the University of Forestry in Sofia. It was founded in 1990. The laboratory is equipped with basic tools for fieldwork, several binocular stereoscopes and a Carl Zeiss measuring table with Dendrostat software with capabilities of measuring tree ring width.

Scientific team

Stefan Mirtchev, Professor

Iliia Vakarelov, Professor

Nikolay Zafirov, PhD Student

Momchil Panayotov, PhD Student

Nevena Simeonova, biologist

Ivan Raev, Professor

Dimitar Dimitrov, PhD Student

Maria Lyubenova, Professor

Alexander Shikalanov, Professor

Albena Assenova, PhD Student



The team in front of Baikushevata mura – a 1300 years old *Pinus heldreichii* tree

Main fields of research:**Dendroecological research:**

- Stressors in *Quercus* forests in Bulgaria and oak decline research

- Predisposing and inciting stressors in *Pinus sylvestris* plantations
- Natural disturbances in treeline forests and plantations

Dendroclimatological research:

- Climate reconstruction in *Pinus sp.*, *Fagus sylvatica* and *Quercus sp.* forests

Dendrochemical research:

- Accumulation of chemical elements in tree rings and their relation to environmental changes

Ongoing research activities

- “Dendroclimatic Analysis for Changes of Air Temperature and Precipitation in Southwestern Bulgaria” – project funded by the National Science Fund in Bulgaria
project leader: Prof. Stefan Mirtchev
contact: stemir_bg@yahoo.com
- Research of stressors of *Pinus sylvestris* plantations in Bulgaria as a part of the PhD research of Nikolay Zafirov with scientific advisor Prof. Mirtchev
Contact: niki_zafirov@itu.bg



Pinus sylvestris plantation in SW Bulgaria

- Research of the influence of disturbances from strong winds, snow accumulations and avalanches in natural treeline forests and afforestations as a part of the PhD research of Eng. Momchil Panayotov with scientific advisor Prof. Stefan Yurukov.

Ongoing Projects: University of Forestry project N47/17.02.2005 - "Studying of the growth and state of experimental afforestations from Pine tree species at the treeline zone" and Project N106/08.03.2004 – "Dendrochronological analysis of the influence of ecological factors on the growth and development of tree species from Pine family (Pinaceae) at the treeline zone".

Contact: panayotov.m@ltu.bg ; mp2@abv.bg



Measuring ring widths from *Fagus sylvatica* disks at the laboratory



Pinus sylvestris tree at treeline plantations bent from snow accumulation

- Research of *Fagus sylvatica* forests in Balkan Range Mountains and reconstruction of past climate based on a 300 years chronology of *Fagus sylvatica* L. as a part of the PhD research of Dimitar Dimitrov with scientific advisor Prof. Raev.

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1756 Sofia, Bulgaria

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web site: <http://dendrochronologybg.net>

Selected publications:

Dimitrov, D., Raev, I., Mirtchev, S., Zafirov, N. (2003): Chronology of tree ring series of *Fagus sylvatica* L. from Berkovitsa State Forest Enterprise – Western Balkan Range. Proceedings: 75 years of the Forest research institute, I, 29-35, Sofia.

Libenova, M., S.Mirtchev (1998): Zn, Mn and Fe in *Fagus sylvatica* L. phyto-mass of two beech communities in Balkan Mountains. Journal of Balkan Ecology, 2, N4

Panayotov M., S. Yurukov (2005): Dendroecological analysis of the influence of strong winds and snow accumulation on the growth of trees at the treeline in Vitosha Mountain, Bulgaria. Proceedings of the "Tree Rings in Archaeology, Climatology and Ecology



(TRACE 2005)" Conference, April 21st-23d 2005, Fribourg, Switzerland (in press)

Vakarelov I., S. Mirtchev, E. Kachaunova, N. Simeonova. (2001): Reconstruction of Summer Air Temperatures by Dendroclimatic Analysis of Macedonian Pine (*Pinus peuce* Griseb.) in Pirin mountain, Southwestern Bulgaria. *Forestry ideas*, 1-4, 16-27.

Zafirov, N. (2005): Dendroecological analysis of Scots pine (*Pinus sylvestris* L.) stands in Vitosha Mountain, Bulgaria'. Proceedings of the "Tree Rings in Archaeology, Climatology and Ecology (TRACE 2005)" Conference, April 21st-23d 2005, Fribourg, Switzerland (in press)

Editorial

Any contributions (e.g. scientific discussions about tree-ring topics, announcements or reports on forthcoming meetings, introductions about tree-ring laboratories) are welcome and should be sent to:

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