

Innovation and Challenges in Bio-based Composites

By Jeremy Warnes, Scion Research, New Zealand

The 9th Pacific Rim Bio-Based Composites Symposium co-sponsored by IUFRO [5.00.00](#) and [5.05.00](#) returned to its roots when it was held in Rotorua, New Zealand from 5 - 8 of November, 2008. The inaugural Symposium in this series was launched in Rotorua in 1992. The event under the theme of "Innovation and Challenges in Bio-based Composites – How Far to the New Frontier?" had a good international representation, with almost three quarters of the attendees coming from outside New Zealand.

Life Cycle Workshop

The main Symposium was preceded by a one day workshop that focused on Life Cycle Assessment and how Life Cycle Thinking can stimulate lateral solutions for environmental problems. Workshop attendees worked through case studies and examples in groups, which demonstrated how as researchers we can use a range of options to innovate beyond what we perceive as the initial problem.

The pre-symposium workshop was concluded with two presentations from North American speakers who gave perspectives on how North America is tackling environmental solutions for wood-based products. Paul Smith from Pennsylvania State University focused on how North American resin manufacturers are seeing formaldehyde emissions as the largest single environmental issue they need to address, while Mike Wolcott from Washington State University looked at the role of 'Green Building' standards or certification and how wood may play a role in Green Buildings of the future.

Looking at new technologies from different angles

The four keynote speakers gave different, complementary perspectives on bio-based composites. Mike Wolcott reviewed technologies used in wood plastic composites (WPC), and gave an excellent overview of the wider aspects of sustainability, such as function, life and design for deconstruction that must be considered to have truly sustainable materials and products.

Chris van Kooten from Dynea spoke about the role of a commercial adhesive supplier in wood-based composites, while Paul Smith looked at mechanisms by which new technologies, with a focus on WPCs, obtain market penetration and a 'tipping point' in growth occurs.

Philip Evans from the University of British Columbia demonstrated his world leading research by showing results of an integrated X-ray micro-computed tomography (CT) analysis of UF resin distribution in 3-D through particleboard.



Photo: Innovatek.Ltd

Group exercise on Life Cycle Thinking from the pre-symposium

Observations in this work led to the conclusion that significant resin migration across wood particles occurs during the hot pressing of the panel.

Interesting data on panel manufacturing and hot pressing

After an intensive exchange of information on latest developments in the fields of adhesives, fibre reinforced plastics, volatile organic compounds and reconstituted panel products, a plenary session wound up the Symposium.

A revealing overview of the diversity in panel manufacturing facilities in China was followed by a presentation showing some interesting results from including essential oils in panel manufacture.

The final presentation covered the complex physical and chemical phenomena that occur in the composite hot pressing process. Interesting data were presented which suggested that marked increases in bond strengths could potentially be achieved through the implementation of cooling stages in the pressing process.

Next symposium

Feedback from delegates indicated that the 9th Pacific Rim Bio-Based Composites Symposium was a success. It was announced that Canada would be the host for the 10th symposium in the series. The organizing committee of the 9th symposium would like to wish Rob Wellwood and his team every success for the 10th Symposium which will be held in Banff in 2010.

Conference site: <http://www.biobased-composites.com/>

IUFRO Awards at the World Congress 2010

The IUFRO World Congress to be held on 23-28 August 2010 in Seoul, Republic of Korea, will be an opportunity to honour outstanding scientific achievements and contributions to forestry with a range of IUFRO Awards. Therefore, we are very pleased to inform you about the various categories of awards and encourage you to submit nominations. The deadline for nominations will be July 2009.

Scientific Achievement Award (SAA)

Up to 10 awards will be given in recognition of distinguished individual scientific achievements within the fields of research covered by IUFRO. Criteria for judgment will include dissemination of results, implementation of findings, methods or techniques in practical forestry and skilled research management (success in publications, meetings, funding, etc. in a larger group than the individual) and involvement in IUFRO activities.

Outstanding Doctoral Research Award (ODRA)

One award per IUFRO Division will be given to recognize outstanding individual scientific achievements among young Doctoral researchers and to encourage further work within the fields of research covered by the Union.

IUFRO Student Award for Excellence in Forest Sciences (ISA)

One award per IUFRO Division will be given to recognize outstanding individual achievements in forest science made by Masters degree students (or equivalent), and to encourage their further work within the fields of research covered by the Union. Nominations can be made through IUFRO Member Organizations or officeholders and through members of the International Forestry Students Association (IFSA).

IUFRO World Congress 2014: Last Call for Bidding

IUFRO Member countries interested in bidding for the XXIV World Congress of IUFRO to be convened in 2014, should be aware of the bidding schedule as outlined below. The bidding guidelines can be found at: <http://www.iufro.org/auth/events/congresses/>.

By December 31, 2008: Proposals are due to the IUFRO Secretariat, for the MC's review. The MC analyzes proposals and ranks up to three best applications for further consideration.

By April 30, 2009: Countries submitting best bids would be invited to present to the Board at its October 2009 meeting detailed documents and slide/video show on the venue and facts of the Congress 2014. The Board votes for the best candidate. As a next step, the Board receives an agreement between IUFRO and the recommended host country that outlines respective responsibilities for finances, facilities, and services.



XXIII IUFRO World Congress
**"Forests for the Future:
 Sustaining Society and the Environment"**
23-28 August 2010, Seoul, Republic of Korea
<http://www.iufro2010.com/>

Furthermore, the Congress will also offer:

Best Poster Award (BPA)

To encourage public dissemination of high quality research and to recognize distinguished poster presentations by young scientists during the IUFRO World Congress.

IUFRO World Congress Host Scientific Award

This award honours a truly outstanding scientist from the Congress host country/countries who has elevated the profile of forest science and research.

For more information and nomination forms, please check our website: <http://www.iufro.org/auth/discover/awards/>. Nominations shall be sent to the Executive Director of IUFRO with a copy to the Chair of the IUFRO Honours and Awards Committee before **31st July 2009**.

Dr. Su See LEE
 Chair of the IUFRO H&A Committee

By June 30, 2010: A recommendation for Congress site and date, and rationale for approval, is forwarded to the International Council.

By August 27, 2010: Formal announcement of the XXIV IUFRO World Congress site and proposed date is made by the International Council.

Results of IUFRO Benefits Survey

Please, visit: <http://www.iufro.org/download/file/3038/4260/Survey-report-mb.pdf>

A considerable number of IUFRO officeholders and members have seized the opportunity to assess IUFRO and its benefits via our online questionnaire. Your feedback and comments are greatly appreciated and will help us to improve our services and fulfil our mission!

The results of the questionnaire were handed over together with the full list of comments received, to the IUFRO Review Panel which successfully convened its first meeting from 13-14 November 2008 at the IUFRO HQ.

Biodiversity in Forest Ecosystems and Landscapes

This international conference was sponsored by IUFRO Research Group 8.02 "Forest Biodiversity" and took place from 5-8 August 2008 at Thompson Rivers University in Kamloops, in the interior of British Columbia, Canada.

The full meeting report by Eckehard Brockerhoff, Jean-Michel Carnus, Hervé Jactel (deputy / coordinator IUFRO 8.02.00 Forest Biodiversity and 8.02.02, respectively) can be found at: <http://www.iufro.org/auth/science/divisions/division-8/80000/80200/activities/>

This stimulating and most memorable meeting was hosted by Thompson Rivers University, British Columbia Ministry of Forests and Range, British Columbia Ministry of Environment, and Forrex, under the leadership of Alan Vyse, André Arsenault, Tom Dickinson, Walt Klenner and many other local organizing committee members.

Nearly 100 participants from 16 countries gathered for this meeting to discuss a wide range of forest biodiversity and conservation issues, monitoring of forest biodiversity at different spatial scales, biodiversity and forest ecosystem functioning, forest management impacts on biodiversity, ecosystem goods and services, and numerous other forest biodiversity conservation issues.

Announcements

Nobel Prize winning scientist elected as future President of the International Council for Science

Professor Yuan Tseh Lee, a Nobel Prize winning chemist from China: Taipei has been elected as the future President of the International Council for Science (ICSU). A world leader in the field of chemical dynamics, Lee was elected by representatives from ICSU's 114 National Members and 29 International Scientific Unions at the 29th General Assembly in Maputo, Mozambique, 21–24 October. He will take up the appointment in April 2010 and will succeed the current ICSU President, Catherine Bréchignac, in October 2011. IUFRO as a member organization of ICSU would like to congratulate the incumbent president.

Schweighofer Prize 2009

The Schweighofer Prize covers the whole range of topics referring to the European Forest-Wood-Chain, including training, co-operations and services. It only excludes pulp and paper issues. The Schweighofer Prize definitely supports interdisciplinary projects and collaboration between research and industry. Therefore there is no strict discrimination of thematic categories.

The templates for submission of proposals for the Schweighofer Prize 2009 are ready for download at www.schweighofer-prize.org. Submissions are only accepted in German or English. Electronic submissions are not possible. The deadline is February 2, 2009. For more details, please, visit the website or write to: [info\(at\)schweighofer-prize.org](mailto:info(at)schweighofer-prize.org)



Field trip photo provided by E. Brockerhoff:

Almost all of the ponderosa pine trees in the area were killed in 2006 during a mass attack by the mountain pine beetle.

Climate change impacts were also discussed, and the venue provided an ideal backdrop for this with the recent outbreak of the mountain pine beetle which is thought to be partly caused by a series of unusually mild winters. Several long-term forest research sites in the surroundings featured prominently in the conference program and in the field trips to various landscapes.

For further information visit the Conference homepage with abstracts and presentations at <http://www.tru.ca/iufro.html> Proceedings papers will be published in a special issue of Forest Ecology and Management.

Position Announcement: Professor of Green Space Management

The University of Copenhagen, Faculty of Life Sciences, Danish Center for Forest, Landscape and Planning, Department of Parks and Urban Landscape wishes to appoint a professor of Green Space Management from August 1, 2009, or as soon as possible thereafter.

For more information, please visit:

<http://www.life.ku.dk/English/positions.aspx>

PhD position at SLU in Uppsala, Sweden

The Swedish University of Agricultural Sciences, Department of Forest Products in Ultuna, offers a PhD position in the research education subject: Forest Policy - "Relationship between Swedish Forest Policy and International Forest Policy Processes".

Contact: Daniela Kleinschmit, [daniela.kleinschmit\(at\)sprod.slu.se](mailto:daniela.kleinschmit(at)sprod.slu.se)

http://www.slu.se/?id=1123&Utbildningsplatser_id=304

Master of Science in European Forestry Erasmus Mundus (2009-2011)

The new call for student applications of the international double-degree Master of Science in European Forestry Erasmus Mundus (2009-2011) has been announced. The deadline for application is 31st December 2008. Selection decisions will be made in March 2009, and the selected students will start the MSc EF course 2009-2011 at the end of August 2009. For more details, visit:

<http://gis.joensuu.fi/mscef>

Obituary

We are sad to inform you that former IUFRO Vice-President **Douglas Redmond** from Canada passed away on 29 October 2008 in his 91st year.

Doug Redmond had dedicated his life to leading the Canadian Forestry Service in maintaining and preserving the Canadian forest industry through the promotion of conservation, preservation and reforestation measures. He represented Canada at the international level to spearhead the preservation of the world's forests and, for his efforts, received an Honorary Membership in IUFRO in 1976.

From 1961-1971 Doug Redmond had been Member of the IUFRO Permanent Committee and from 1972-1976 he served as Vice-President of IUFRO. As Chairman of the Programme Committee he contributed most significantly to the active work of IUFRO during the first period after IUFRO's reorganization, when the new divisions and research groups had to find their way.

On behalf of IUFRO, we would like to express our deep sympathy with his family and friends.

Global Change and Sustainable Development in Mountain Regions

Executive Summary – Recommendations for Research

By Robert Jandl (BFW, Vienna), Axel Bosdorf (IGF, Innsbruck) and Günter Siegl (COST, Brussels).

For more details, please, visit

<http://bfw.ac.at/rz/bfwcms.web?dok=6202> or contact Robert Jandl at <[robert.jandl\(at\)bfw.gv.at](mailto:robert.jandl(at)bfw.gv.at)>

Two New Publications on Mangroves

Members of IUFRO Working Party 1.02.03 were involved in the following two publications:

Mangrove forests and human security

By Bradley B. Walters

Published by CAB International 2008 (Online ISSN 1749-8848)

Ethnobiology, socio-economics and management of mangrove forests: A review

Bradley B. Walters, *et al.*

published by Elsevier in Aquatic Botany

Contact: Bradley Walters at <[bwalters\(at\)mta.ca](mailto:bwalters(at)mta.ca)>

FAO Forestry Paper 155: Forests and Water

A thematic study prepared in the framework of the Global Forest Resources Assessment 2005, by L.S. Hamilton
FAO, Rome, 2008, ISBN 978-92-5-106090-2

<http://www.fao.org/docrep/011/i0410e/i0410e00.htm>

Publications

IUFRO Occasional Paper 22

Policies and Instruments for the Adaptation of Forests and the Forest Sector to Impacts of Climate Change as Indicated in United Nations Framework Convention on Climate Change National Reports

Prepared by Geoff Roberts, IUFRO, Vienna, 2008

This report has been created for the CPF Global Forest Expert Panel on Adaptation of Forests to Climate Change.

For copies, contact: [office\(at\)iufro.org](mailto:office(at)iufro.org)

<http://www.iufro.org/auth/publications/series/occasional-papers/>

Proceedings: IUFRO Units 4.01, 4.02, 4.04

Advances in Forest Management and Inventory

International Conference from October 13-17, 2008, Kangwon National University, Chuncheon, Gangwon Province, co-organized by the Forest Science Institute of KNU, and Korea Forest Research Institute

Contact: Jong-Choon Woo, [jcwoo\(at\)kangwon.ac.kr](mailto:jcwoo(at)kangwon.ac.kr)

Proceedings: IUFRO Working Party 2.02.15

Five-Needle Pines Symposium

International conference in Valiug, Romania, from 19 to 23 September, 2006: The Symposium proceedings were printed and published in the Annals of Forest Research, journal of forestry and environmental sciences (Vol. 51, 2008, 180 p.) of the Bucharest Forest Research & Management Institute. They can be ordered free of charge from Dr. Iovu Biris: [ecologie\(at\)icas.ro](mailto:ecologie(at)icas.ro); or downloaded from: <http://www.e-af.org>. Selected papers from the symposium were published in a special issue of Forest Genetics 13 (1), 2008.

IUFRO Meetings

NOTE: The following list of meetings is just a selection!

For a full list of IUFRO events, please visit our online [calendar](#), or the [homepages](#) of IUFRO Units involved. Non-IUFRO meetings are also announced on the IUFRO [Noticeboard](#) on our web site.

Search for forest-related events at:

<http://www.gfis.net>



16-18 April 2009

Forest, Wildlife and Wood Sciences for Society Development

Prague, Czech Republic

IUFRO [4.00.00](#)

Contact: Robert Marusak, [marusak\(at\)fld.czu.cz](mailto:marusak(at)fld.czu.cz)

<http://fww2009.krajinari.com/>

13 May 2009

Viruses of Forest and Urban Trees

Berlin, Germany

IUFRO 7.02.04; in the framework of the 3rd International Symposium on plant health in Europe (14-16 May)

<http://dpg-bcpc-symposium.de>

Contact: Carmen Büttner,

[carmen.buettner\(at\)agrar.hu-berlin.de](mailto:carmen.buettner(at)agrar.hu-berlin.de)

<http://www.iufro.org/auth/science/divisions/division-7/70000/70200/70204/activities/>

19-22 May 2009

Extending Forest Inventory and Monitoring, over Space and Time

Quebec City, Canada

IUFRO [4.00.00](#), [4.01.00](#), [4.02.00](#), [4.02.05](#), [4.03.00](#), [4.03.01](#)

Contact: Ronald McRoberts, rmcroberts@fs.fed.us ;
Richard Fournier, Richard.Fournier@USherbrooke.ca
<http://skog.for.msu.edu/meeting/>

27-30 May 2009

12th European Forum on Urban Forestry

Arnhem, The Netherlands

The 12th EFUF will have as (preliminary) title:

"Urban forestry: Working together for green city values"

IUFRO [6.14.00](#)

Contact: Cecil C. Konijnendijk,
cecil@woodscape-consult.com

Further information to be released soon at www.efuf.org

7-11 June 2009

Small-scale Forestry Symposium: Seeing the Forest Beyond the Trees: New Possibilities and Expectations for Products and Services from Small-scale Forestry

Morgantown, West Virginia, United States

IUFRO [3.08.00](#)

Contact: Dave McGill, dmcgill@wvu.edu
<http://ssf09.com/>

21-24 June 2009

International Symposium: Change in Governance as Collective Learning Process: Management, Politics and Ethics in Forestry

Nancy, France

IUFRO [6.05.00](#); [6.12.00](#)

Contact: Gérard Buttoud, buttoud@engref.fr ; Olli Saastamoinen, olli.saastamoinen@forest.joensuu.fi

10-17 July 2009

Diseases and Insects in Forest Nurseries

Hilo, Hawaii, USA

IUFRO [7.03.04](#)

Contact: Michelle Cram, mgram@fs.fed.us
<http://www.westernforestry.org/iufro/iufro7-03-04.htm>

23-24 September 2009

Sustainability Impact Assessment of the Forest-based Sector

Uppsala, Sweden

EFORWOOD – final conference

IUFRO

Contact: Denis Mc Gowan,
denis.mcgowan@innovawood.com
<http://87.192.2.62/eforwood/default.aspx>

29 November – 2 December 2009

International Conference on Global Efforts in Response to Forest-related Natural Disaster

Kunming, China

Organized by CSF, co-sponsored by IUFRO

Contact: Shirong Liu, Liusr@caf.ac.cn

We spread the news about your IUFRO activities!

Dear IUFRO Officeholders and Members,

IUFRO News, Noticias de IUFRO, the IUFRO website and GFIS help you spread the news about your IUFRO activities. Announce your meetings and publications, write scientific meeting summaries or meeting reports, send us related photos and provide us with two hardcopies and an electronic version of conference proceedings!

Please, visit: www.iufro.org
and write to: office@iufro.org

Other Meetings

28 January – 17 February 2009

Winter school entitled "Agroforestry for farm diversification and carbon sequestration"

For detailed information please contact:

Sanjeev K Chauhan, Course director, Dept. of Forestry and Natural Resources, PAU Ludhiana 141 004 (India) at chauhanpau@rediffmail.com or chauhansk@dr.com

12-13 February, 2009

BioPower Generation Conference

Brussels, Belgium

part of the EU Sustainable Energy Week 2009,

<http://www.eusew.eu/>

<http://www.greenpowerconferences.com/biofuelsmarkets/biopower.html>

Pre Conference Workshop on 11 February 2009:

Building a Biopower Portfolio for the Future - Strategies and Raw Materials

10-12 March 2009

Climate Change: Global Risks, Challenges and Decisions

Copenhagen, Denmark

The University of Copenhagen is organizing this scientific congress in cooperation with the partners in the International Alliance of Research Universities (IARU)

<http://www.climatecongress.ku.dk>

4-6 June 2009

7th International Conference "Wood Science and Engineering in the Third Millennium" – ICWSE 2009

Brasov, Romania

Hosted by the "Transilvania" University of Brasov, on the occasion of the Jubiliary Anniversary at 50 Years of Existence of the Faculty of Wood Industry.

Contact: Mihai Ispas, ispas.m@unitbv.ro

http://www.unitbv.ro/il/ICWSE2009/conference_topics.htm

21-24 June 2009

ASABE 2009 Annual International Meeting

Reno, Nevada, United States

American Society of Agricultural and Biological Engineers

<http://www.asabe.org/meetings/index.html>