

**INTERNATIONAL
ACADEMY
OF
WOOD SCIENCE**

**BULLETIN
2011-I**



www.iaws-web.org/

July 2011

Executive Committee

President: Lennart Salmén, Stockholm
Vice-President: Uwe Schmitt, Hamburg
Secretary: Robert Evans, Melbourne
Treasurer: Howard Rosen, Silver Spring
Past President: Frank Beall, Richmond
Bulletin Editor: John Barnett, Kniveton
Chair of the Board: George Jeronimidis, Reading

ACADEMY BOARD

Chair: G. Jeronimidis (2012)

F. Kamke (2014)

S. Kelley (2012)

B. Lachenbruch (2012)

H. Militz (2016)

F. Nakatsubo (2014)

C. Sales (2016)

P. Saranpää (2014)

A. Singh (2014)

P. Vinden (2016)

U. Westermark (2016)

S.Y. (Tony) Zhang (2012)

End of terms: 1 June

Please send correspondence to:

ROBERT EVANS

Silvi Scan Pty. Ltd.

8 Dobell Place

Dooncaster East, Victoria 3109

AUSTRALIA

Email: robert.evans@silviscan.com

www.iaws-web.org/

TABLE OF CONTENTS

Message from the President	1
Treasurer's Report 2010	2
New Executive Secretary	5
IAWS Executive Committee Review of Research in Brazil	6
Joint IAWS, IAWA, IUFRO Meeting Madison 2010	7
Newly Elected Fellows 2011	9
Honours Awarded to Fellows	13
News of Fellows	15
Obituaries	15
• Vance Charles Setterholm	15
• John Maddern Harris	16
• Hubert Polge	17
Forthcoming Meetings of Interest to Fellows	18
Books by or of Interest to Fellows	21
Book Review	22
Wood Science and Technology	23
Highlights	25
• Spiral Grain by Light Transmission: Proof of Concept	25
• Synchrotron Based Tomographic Microscopy of Wood under Compression	25
• Industrialisation, Marketing and Sustainable Management of ten Mexican Native Species	27
• Who has the Biggest Wood Collection?	30
• The International Center of Forestry and Forest Industries (ICFFI) of St. Petersburg State Forest Technical Academy	30
• The Institute of Biomass Chemistry and Technology, Beijing Forestry University, Beijing, P. R. China	32
Guidelines for Highlights	33
Nomination Procedure for Election of Fellows	34
Nomination Form	35

MESSAGE FROM THE PRESIDENT

After fifteen years on the Executive Committee as an active member, it's now time to take a "back seat" and offer advice when asked. In becoming Past President on June 2, I have an opportunity to join a very exclusive group and I have greatly enjoyed contributing toward the advancement of IAWS. We have major opportunities that lie ahead, especially in gaining recognition as the leading voice in the area of wood science. I know that incoming President Lennart Salmén has this very high on his list of priorities.

Since this is my last message as President, it provides an opportunity to look back at our accomplishments in recent years. When I came on as Secretary-Treasurer in 1996, email was just starting as a major communication method. Virtually everything we did then was by hard copy and mailing cost was a major expenditure. This also made international contacts very slow and nearly impossible to certain countries. We now have a web page and do almost everything electronically, including elections.

In 1997, we had our first Plenary meeting (in Vancouver, BC), followed by one in Reading in 2000. The Plenary meetings then became an annual event (New Zealand, Beijing, Latvia, Montpellier, Concepcion, Melbourne, Kyoto, London, St. Petersburg/Moscow, Madison, and this year, Stockholm. Last year, we initiated special Executive Committee meetings in areas of the world with interest in opportunities for us to provide input on their wood science research (Africa 2010; Brazil 2011).

Some of our effort in the Executive Committee was devoted to improving our efficiency in serving the membership. In 2005, we created separate offices of Secretary and Treasurer, largely because of the need to have the Secretary concentrate on maintaining the new web page. Then in 2008, we created a new office of Bulletin Editor to further partition the secretarial work load. The other major change administratively was to separate the Board from the Executive Committee to give them special responsibilities, and to appoint the Board Chair to the Executive Committee to improve communications. Amendments to the Constitution and Bylaws were made to affect these changes.

Although we have made an effort to increase the number of Supporting Members, the total has changed very little over time. Currently, we have 23 Supporting Members in Canada, China, France, Germany, Japan, New Zealand, Poland, Slovakia, Sweden, Taiwan, and USA. This lack of increase appears to be a combination of very tight budgets and the disappearance of a number of wood science research organizations.

Our most recent effort was to create yearly international competitions for the best PhD papers. The competition is limited to students receiving their degrees in other than their native

Our most recent effort was to create yearly international competitions for the best PhD papers. The competition is limited to students receiving their degrees in other than their native country with the purpose of fostering and recognizing cross-national interaction. This year we made three awards and the first-place awardee will be presenting the first-place paper at the meeting in Stockholm.

We have several other efforts under study or almost underway. Since we operate by “committee” and have a reasonably international representation, you can probably understand that gaining consensus on the details (or wisdom) of such efforts requires time. While this sometimes can be frustrating, such a conservative approach maximizes success. I hope the membership appreciates our desire to do things that fulfill the IAWS objectives.

This is now the end of the term for Xavier Deglise on the Executive Committee. I would like to thank him for his significant contributions to IAWS over the years and wish him well for the future.

Frank Beall/Richmond

TREASURER’S REPORT

Treasurer’s Report for 2010

The details of the 2010 Treasury Report are presented on the following page. The dues have been broken down into categories and the E is for “extra” year’s payment. The net change for 2010 was \$6,178. At the end of 2010, 127 of the 147 (86%) Active and Retired fellows and 22 of the 24 supporting members were current in their dues. Our CD’s total \$56,162 and interest rates have dropped to slightly over 2% for two-year CD’s. Again, more of our members are using PayPal to pay their dues; 71 of our members used this credit card method in 2010. We continue to pursue creative avenues to continue the support from these organizations.

We also helped collect registration using our PayPal account for the IAWA/IAWS/IUFRO Joint Conference Program June 23-26, 2010 in Madison, Wisconsin, USA. The amounts are listed under Revenues and Expenses. With expansion of the SWST Website, regular technical meetings, and inflation, more revenue was essential to preserve our quality programs.

So far in 2011, we have received payments from 16 of 23 supporting members, 33 of 47 Retired fellows, and 61 of 100 Active fellows. Compared to the financial problems of many of the countries which our Fellows represent, IAWS is financially sound and 2010 was a good financial year.

If you are able, please try PayPal—the process is simple and efficient.

Howard Rosen, USA
Treasurer
April 25, 2011

IAWS Expenses and Revenues--Calendar Year 2010

Revenues (E – extra years paid by a member)

Retired dues (41 + 10E)	1,020.00
Active dues (74 + 8E)	4,080.00
Lifetime dues (4)	2,400.00
Supporting (22 + 2E)	4,648.00
Donations (3)	75.00
Interest on CD	397.41
Closed CD's	25,137.67
IAWA/IAWS Meeting Registration	8,675.00
Total	46,433.08

Expenses

Printing/mailing	553.31
Travel	5,599.00
Foreign bank/wire fees Capital One	350.00
PayPal IAWS Fees	223.66
PayPal Meetings Fees	316.71
IAWA/IAWS Meeting Expenses	8,358.29
Website	833.22
Opened CD's	25,000.00
Total	41,234.19

Income = \$46,433.08 - \$41,234.19 = \$5,198.89

Chevy Chase Account

Beginning balance January 1, 2010	11,478.97
Deposits by H. Rosen	28,870.08
Incoming bank wires	2868.00
Transfer from PayPal	14,090.00
Withdrawal – Fees	-350.00

Transfer from PayPal	14,090.00
Withdrawal – Fees	-350.00
– Wires	-27,472.62
– Checks	-11,234.01
– Cash	-1,585.00
End Balance December 31, 2009	\$16,665.42

PayPal Account

Beginning balance January 1, 2010	69.64
Deposits (51 active, 22 retired, 4 life, 3 Support)	5,870.00
IAWA/IAWS Meeting Registration	8,675.00
Donation	25.00
Transfer to Chevy Chase	-14,090.00
Fees	-540.37
End Balance December 31, 2010	9.27

Total Assets

- CD Intervest National Bank **\$30,773.07**
-opened 10/16/09 at 2.2% for 2 years
-interest is accumulated
- CD Discover **\$25,388.46**
-opened 4/07/10 at 2.1% for 3 years
-interest is accumulated

I have examined the books of the IAWS Treasury Account for 2010 and have found all the details in satisfactory order.

Robert L. Youngs

Robert L. Youngs, Fellow, IAWS
Professor Emeritus, Virginia Tech

Date: 1/24/2011

Checking + PayPal Accounts = **\$16,674.69**
Net change **2010 – 2009** **\$ 6,178.12**

Total Assets = **\$72,836.22**

2010 new Lifetime Fellows

Guanben Du
Howard Rosen
Uwe Schmitt
Siquan Wang
Kelin Ye
Dingguo Zhou

2010 voluntary contributions

Starting in 2011, we have provided an opportunity for Fellows to make voluntary contributions to IAWS. We thank each of these for helping to further the goals of IAWS.

The following Fellows have made such contributions over the past year:

Robert Hanna
Robert Ross

NEW EXECUTIVE SECRETARY

As a result of the election of Uwe Schmitt as incoming Vice President of the Academy, there was a need to appoint a new Executive Secretary. Bearing in mind the need to keep the membership of the Executive Committee representative of different geographical areas, Rob. Evans was approached and kindly agreed to take over this task. He will be well-known to many fellows of the Academy through his work on Silvi-Scan, which won him the Wallenberg Prize in 2001.

Rob gained his PhD at the University of Sydney in colloid and surface chemistry. He spent the next two years at the Empire State Paper Research Institute in Syracuse New York, followed by 7 years at Australian Paper Manufacturers Research Division in Melbourne, Australia. In 1985 he moved to CSIRO, where he developed SilviScan and associated technologies (now operating in Melbourne, Stockholm and Vancouver). Rob was awarded the Appita L.R Benjamin medal (1997), the Marcus Wallenberg Prize (2001), the CSIRO Chairman's Gold Medal (2001), and the ATSE Clunies Ross National Science and Technology Medal (2004). He was elected Fellow of IAWS in 1997, became a member of IAWA in 2004, IASPM in 1996, was elected Fellow of the Australian Academy of Technological Sciences and Engineering in 2004, was a CSIRO Fellow (2007-2010), and is an Appita Fellow (2011). Rob has served on the IAWS nominations committee, and chaired the organisation committee for the IAWS 40th anniversary meeting in Melbourne, 2006. He is on the editorial panel of the Journal of Wood Science and Technology as well as several other Journals. Since 2010 he has been a CSIRO Honorary Fellow. He is Director of SilviScan Pty Ltd, enjoys mountain biking and playing guitar in two rock bands.

The Academy's thanks go to Uwe Schmitt for his excellent work as secretary and we wish him well in his new role as Vice President.

IAWS EXECUTIVE COMMITTEE REVIEW OF RESEARCH IN BRAZIL

In April 2011, the Executive Committee met in Brazil as part of a programme of meetings designed to gain a better understanding of wood science research in areas of the world in which IAWS has minimal representation. This was the second such meeting, the first being in Rabat, Morocco in 2010. This initiative aims to help further the development of emerging wood science educational and research programs, where wood science has not necessarily matured or has not gained international recognition.

The purpose of the review in Brazil was to provide recommendations for enhancement of Brazilian research in the international community. The review was conducted over the period of 9 to 14 May 2011. The Executive Committee members attending were: Frank Beall (President), Lennart Salmén (Vice-President), Xavier Deglise (Past President), Uwe Schmitt (Secretary and Vice-President Elect), and Howard Rosen (Treasurer).

The visit was divided into two major parts: (1) attendance at an NDT meeting in São Carlos, and (2) visits to selected institutions in São Paulo to have contact with researchers and gain familiarity with their facilities and research capability. The constraint of time limited the assessment to São Paulo State.

In São Carlos on 9 May, two members of the Executive Committee gave two invited presentations: “How non-destructive evaluation will meet the needs of future wood-based materials” by Frank Beall and “Ultrastructural organization of the wood polymers in wood fibres—new findings” by Lennart Salmén. This was followed on 10 May by presentations on non-destructive testing of wood in III Encontro Regional em Madeiras e Estruturas de Madeira (the Third Regional Meeting on Timber and Timber Structures).

Following the NDT meeting, the Executive Committee made the following facility visits and contacts:

11 May (am)	EREMEM	São Carlos	Dr. Carlito Calil Junior
11 May (pm)	UNESP	Botucatu	Dr. Adriano Ballarin
12 May (am)	ESALQ/USP	Piracicaba	Dr. Mario Tomazello Filho
12 May (pm)	UNICAMP	Campinas	Dr. Antonio Lucovico Beraldo
13 May (am)	IPT	São Paulo	Dr. Geraldo José Zenid
13 May (pm)	Botany Institute/USP	São Paulo	Dr. Gregório Ceccantini

The visit concluded with a closing meeting by Executive Committee to discuss the findings. A report will be provided to São Paulo State in June.

The Executive Committee greatly appreciated the effort made by the organizers, Drs. Carlito Calil Junior and Adriano Wagner Ballarin, and the support of FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo; Foundation for Research Support of the State of São Paulo) for the expenses of Beall and Salmen. Although the presentations were limited to non-destructive testing, they gave the Executive Committee a very good sense of the overall approach to wood science research in Brazil. Our special thanks to Fellow Amantino de Freitas, who was our key contact for organizing the visit.

Frank Beall

JOINT IAWS, IAWA, IUFRO MEETING IN MADISON – JUNE 23-26 2010



Delegates on the steps of the Memorial Union, Madison (photo by Peter Gasson)

The eleventh annual meeting of IAWS was held jointly with the Pan-American Regional Group of the International Association of Wood Anatomists and Division 5.01 (Wood Quality) of IUFRO. This was the first time since Academy annual meetings began that one has been held in the United States and it was timed to join the celebration of 100 years of wood

science and wood anatomy research at the Forest Products Laboratory in Madison. Fellows presented papers on a wide range of topics and their presentations may be viewed on the Academy website at <http://www.iaws-web.org/papersmadison.html>.

As is usual at these meetings, an Academy lecture was presented. On this occasion the lecturer was the Academy's treasurer, Howard Rosen, whose lecture had the title "From Wood Science to Forest Products Research Policy: A Chemical Engineer's Fulfilling Journey". The lecture along with other Academy lectures may be viewed on http://www.iaws-web.org/academy_lectures.html

A full scientific programme was complemented a dinner for IAWS Fellows and guests, an excellent conference banquet and excursions to Frank Lloyd-Wright's home "Taliesin", and the Wisconsin River, with a memorable hike along the Balanced Rock Trail in Devils Lake State Park. Special thanks are due to Fellow Regis Miller (the local organiser), and the Fellow Pieter Baas for coordinating such an excellent conference.



President Beall presents Howard Rosen with a certificate following his Academy Lecture

NEWLY ELECTED FELLOWS 2011



Rubén A. Ananias

Director Department of Wood Engineering, Department of Wood Engineering, Faculty of Engineering, University of Bio-Bio, Concepción, Chile.

Professor Ananias works in the area of wood-water relationships, the fundamentals of drying and its application to Chilean hardwood species (*Nothofagus* spp., *Laurelia phillypiana*, *Drimys winteri*). In particular, heat and mass transfer properties, wood structure and its relationship to permeability and wood collapse. His work involves mathematical modeling, drying curves predictions and drying behaviour of hardwood species

Marian Babiak

Professor, Technical University in Zvolen, Slovakia

Professor Babiak's research involves the study of the thermal properties of wood I particular thermal conductivity and diffusivity, diffusion coefficients and the influence of boundary conditions, non-isothermal water movement, permeability and sorption theories.



Chunping Dai

Senior scientist, group leader, FPInnovations (Formerly Forintek), Canada



Dr Dai has developed a series of mathematical models to predict wood composite mat formation, consolidation, hot pressing, resin distribution and bonding. He has also developed computer programs which simulate key manufacturing operations and have been widely used by the wood products industry in addition to a new veneer processing technology which is currently used by over 70% of the Canadian softwood plywood/LVL mills. Other developments include a novel green moisture sorting method for plywood/LVL veneer drying.



Yulin Deng

Professor, School of Chemical and Biomolecular Engineering at Georgia Institute of Technology, USA

Dr. Yulin Deng works in the area of lignocellulose fundamentals and pulp and paper science and engineering. His research covers cellulose material modification, biofuel production, cellulosic nanocomposites, papermaking and polymer synthesis.

Geoffrey Downes

Principal Research Scientist, CSIRO Sustainable Ecosystems, Tasmania

Dr Downes research includes attempting to understand and predict wood property variation as a function of short-term environmental variation. The use of high spatial / temporal resolution dendrometers to rescale sub-annual wood property variation (density, MFA, cell dimension data) to a temporal time step led to the development of methods for processing hourly stem growth data now used by a range of other researchers. Recent work has been directed at modelling cambial activity as a function of daily environmental variation based on physiologically-meaningful algorithms. He is also involved in the application of Near Infra-red Spectroscopy to the prediction of Kraft pulp yield and cellulose in plantation eucalypts.



Mohd. Hamami

Professor, Department of Forest Production, Universiti Putra Malaysia (UPM) 43400, Serdang, Selangor, MALAYSIA.

Dr. Mohd. Hamami's research has centred on wood anatomy, wood gluing and wood quality studies, in particular the characterization and evaluation of the properties and quality of many lesser used and plantation timber species. Species such as *Acacia mangium* and *Azadirachta excelsa* are attracting more attention together with rubber wood (*Hevea brasiliensis*).

He also works on utilisation of small diameter plantation timbers and palm woods, especially for the production of engineered wood panel products in Malaysia.



Jian-chun Jiang

Director of Institute of Chemical Industry of Forest Products (ICIFP), Chinese Academy of Forestry (CAF), China.

Dr. Jiang's work has focused on activated carbon, woody biomass energy, and chemical engineering research related to forest products chemical processing. He has improved the preparation of high performance granular activated carbon from a wide range of agricultural byproduct wastes such as rubber seed shell for application in n-butane adsorptions and citric acid refining. He has also

worked on biofuel production by catalytic cracking of woody oils and the development of the process for upgrading rice husk bio-oil by means of phase separation and the production of esters from water phase and novolac resins from the insoluble phase. In engineering research,

Mikael E. Lindström,

Head of Department Fibre and Polymer Technology, KTH, Stockholm

Professor Lindström's work has been on kraft pulping and his results have provided a base for development of several new cooking systems by one of the main machine suppliers to the pulp and paper industry. In his work at Kvaerner Pulp AB the focus on my research and development was to improve fibre properties through process optimisation. Increasing the hemicellulose content and especially the xylan content in the final pulp improves the bonding strength/area between fibres. This improves e.g. the tensile strength and the fracture mechanical properties of the pulp, which are important pulp properties. It has been shown that both xyloglucan and carboxymethyl cellulose are powerful polymers in this respect.



Eldar D. Lobzhanidze

Head of the Department of Ecology, Dean of the Faculty of Natural Sciences, Kakheti Branch of Tbilisi State University. Paliashvili str. 49 Ap. 16, 0179 Tbilisi, Georgia

Professor Lobzhanidze's work is focused on wood anatomy-physiology and ecology, particularly in the Transcaucasian mountain forests which spread from semi-desert of the east to western subtropics of the Black Sea coast of Georgia, and from forests of the plains to high-altitude sub-alpine stands. This work has identified cambium activity rhythms and their influence on anatomical structure and physical-mechanical properties of wood.



Jianxiong Lu

Deputy Director of the Research Institute of Wood Industry (CRIWI), Chinese Academy of Forestry (CAF), China.

Dr Lu works on wood water relationships, in particular the mechanism of fluid flow in wood and ways to improve liquid penetration in refractory species. He also researches the fundamental and practical development of optimized drying technology on valuable hardwood species, emphasizing on the effects of different drying methods on liquid penetration of wood, and the relationships between drying methods and rheological properties of wood. He has investigated the basic properties of Chinese plantation woods and the relationships between silviculture, wood properties and processing qualities.

Shusheng Pang

Professor and Director, Wood Technology Research Centre (WTRC), University of Canterbury (UoC), New Zealand.

Professor Pang works on wood drying and related wood properties (wood-water relationship, shrinkage, mechanical properties): fundamental studies and modelling of wood drying process, drying stress and wood distortion with drying. He also models wood fibre drying for MDF production, veneer drying, and hot press of LVL and MDF. He has developed novel methods for extraction of wood cellulose using ionic liquids, which is then used for making biocomposites.



Gerhard Schickhofer

Head of the Institute for Timber Engineering and Wood Technology: Manager and Scientific Director of the Centre of Competence 'Holz.Bauforschung gmbh', Graz University of Technology, Austria.

Professor Schickhofer is concerned with the development of wood products for use in building. These include GLT (in German: 'Geprüfter Leimholz-Träger', in English: tensile proofed girder) and CLT (Cross Laminated Timber). The aim is to determine the most important characteristics and product models. He has also led research projects on connection techniques, especially on self-tapping screw connections, where the main focus lay on the use of such systems for large spanned buildings and high loaded connections. A system connector called SHEPRA XL was developed in close cooperation with the industry.

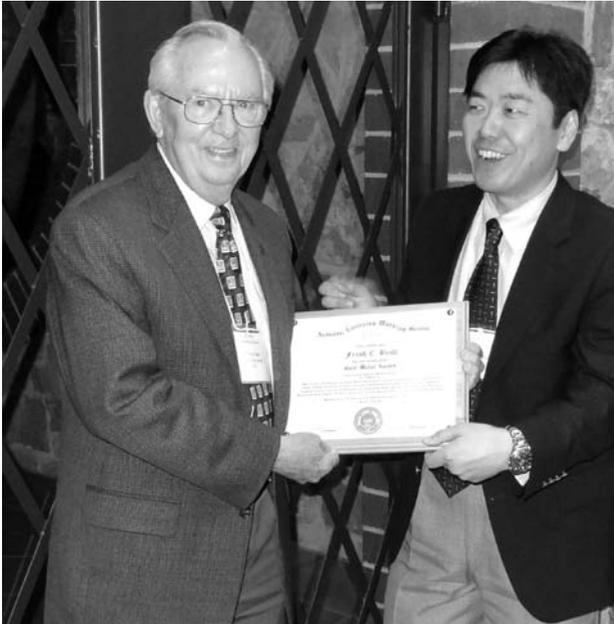


John S. Sperry

Professor, Department of Biology, University of Utah, 227S 1400E, Salt Lake City, UT, USA

Professor Sperry has worked on water relations in trees, in particular cavitation in the xylem, its causes and effects. Among any achievements developed a hydraulic method (the „PLC“ method, percent-loss of conductivity) for measuring xylem cavitation and invented the „vulnerability curve“ for assessing how resistant the xylem is to cavitation, He was among the first in the late 80’s to link cavitation to air-seeding at inter-conduit pits, did the earliest work on freezing-induced cavitation and spring refilling in temperate trees, co-developed the centrifugal force method for measuring vulnerability curves and demonstrated the linkage between hydraulic conductance and stomatal conductance via leaf water potential feedback.

HONOURS AWARDED TO FELLOWS



Frank Beall

Outgoing Academy President Frank Beall has been presented with the Gold Medal Award of the Acoustic Emission Working Group on 18 May 2011 at the 53rd meeting of AEWG in Denver, Colorado. This was “in recognition of his extensive contributions to the field of AE through his pioneering work in the development and application of acoustic emission and acousto-ultrasonic techniques in the forest products industry, advancing these technologies through his teaching, research, and publications; his distinguished service and leadership to the

Acoustic Emission Working Group as a member and officer; and his many years as Associate Editor of the Journal of Acoustic Emission.” Frank was previously honored with the Fellow Award (1994) and the Achievement Award (1997).

The Acoustic Emission Working Group is a world-wide body that was founded in 1967 as a non-profit organization to promote discussion and discourse in the field of acoustic emission.

Alexander Alexeev

Professor Alexeev has been elected as a Foreign Fellow of the Royal Swedish Academy of Agriculture and Forestry. The task of The Royal Swedish Academy of Agriculture and Forestry is, with the support of science and practical experience and in the interest of society, to promote agriculture and forestry and associated activities. The Academy was founded in 1811 and is an impartial organisation, economically independent of the authorities, business and interest groups. Its free and independent position in society and its good name create unique opportunities for meetings and constructive discussions.



Professor Alexeev (third from left) at his investiture as a Fellow of the Royal Swedish Academy of Agriculture and Forestry.

NEWS OF FELLOWS

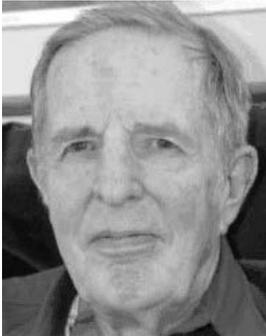
HG (Jorgo) Richter

Since his retirement from the Federal Research Centre for Forestry and Forest Products (Hamburg) in 2004 he has been working as a visiting professor at the University of Guadalajara, Department of wood and Pulp and Paper Technology. There he has occupied himself with teaching and research, and also in elaborating a project proposal to ITTO dealing with forestry, wood technological and product marketing aspects of 11 Mexican tropical timbers. The project was eventually approved and partially financed by ITTO and will terminate by the end of 2011.

Anatoly Chubinsky

Professor Chubinsky is the new executive director of International Center of Forest and Forest Industry of the St Petersburg State Forest Technical Academy. See item in Highlights).

OBITUARIES



Vance Charles Setterholm (1925 - 2009)

Vance Charles Setterholm 83 died on February 9, 2009 at home in Sturgeon Bay, Wisconsin. He was born March 1, 1925 in Minneapolis to Agnes (Svendsen) Setterholm and Lewis Oliver Setterholm, the youngest of four children. During the second world war he served

in the Naval Air Corps flying a Kingfisher. After the war Vance and a boyhood friend took an epic canoe trip, paddling and portaging from Athabasca to Ft. Vermilion, Canada - braving rapids, harassing moose and cursing mosquitoes.

He obtained his BS in Wood Technology from the University of Minnesota in 1950 and joined the USDA Forest Products Laboratory in Madison, Wis, where he spent a distinguished 42-year career as a pulp and paper scientist. At the Lab, Vance developed a paper-making process called press drying and was an early proponent of paper recycling. He held patents for measuring paper properties and for FPL Spaceboard, a stronger and more efficient alternative to corrugated cardboard that allows paper pulp to be used in more demanding applications such as building construction.

Vance was elected as a Fellow of both the International Academy of Wood Science in 1984 and the Technical Association of the Pulp and Paper Industry (TAPPI) in 1988. He also served on the TAPPI board of directors and lectured widely.

Vance met his future wife, Jean Stuart Gallaher, at the UW library. They married in September 1951 and lived in Madison until 1979 when the family moved to a farm outside of town. After retirement Vance and Jean relocated to Sturgeon Bay. At home, Vance enjoyed woodworking and photography, but he preferred being outdoors, planting trees, beekeeping, gardening and cutting wood. A kind and gentle soul to the end, Vance is survived by his wife, Jean, and his three daughters, Kirsten, Ditte, and Andrea.

Theodore H Wegner (communicated by Robert Ross)



John Maddern Harris (1921 - 2010)

John Harris passed away on November 18th 2010 at the age of 89. Those who knew him will remember him as the archetypical Englishman with impeccable good manners and a sharp wit. He was born and raised in Royal Leamington Spa in the county of Warwickshire, England. Like so many of his contemporaries of many nations in 1939, his chance of higher education had to be sacrificed in the service of his country. He joined the Royal Air Force and served throughout as a pilot in Bomber Command and was one of the fortunate minority of aircrew who survived the war. At this time he met many New Zealanders who were flying with the RAF and it was their tales of home that induced him to resign his commission at the end of the war and emigrate with his wife Beryl and stepson Jim to New Zealand. He told me that he performed a small ceremony on board the emigrant ship in which he threw his RAF uniform into the sea.

He had been offered unspecified employment with the Forest Service before his departure from England and he began work as a labourer on a National Forest Survey in the Coromandel Peninsula. In 1948 he was accepted onto the junior trainee course which at that time consisted of school leavers and ex-servicemen. He then went to Victoria University in Wellington and completed a BSc and MSc after which he joined the rapidly developing Forest Research Institute in Rotorua. He headed his own Wood Quality Research Group which aimed to investigate the properties of a variety of timbers grown in New Zealand, but which eventually came to concentrate mainly on radiata pine.

His own research contributions included improving understanding of heartwood formation, a nationwide survey of wood density, tracheid length and latewood characteristics of radiata pine, which showed a relationship between mean temperature and density. He was also fascinated by the causes of spiral grain its interaction of microfibril angle and longitudinal shrinkage. His first task on retirement was to produce a definitive book, “Spiral Grain and Wave Phenomena in Wood Formation” in the Springer Series in Wood Science.

His contribution to wood science was recognized by the award of a DSc by the Victoria University of Wellington, and his election as a Fellow of the Academy in 1975.

While in Rotorua was elected to the city council and served a term a deputy mayor. He retired in 1984 and moved with his wife to the Christchurch suburb of Sumner. Here, he was invited to give lectures to students in the Forestry School. He kept fit by tramping the major tracks in the South Island, and around the Port Hills on Banks’ Peninsula. The latter he helped to maintain as a member of working parties until shortly before his death.

I feel privileged to have worked under John’s supervision during the early part of my career. His advice and encouragement set me along the path of wood science and I am proud to have known him.

J. R. Barnett



Hubert Polge (1924 - 2011)

Born in July 1924, Hubert Polge died on April 17th 2011, at the age of 86. He qualified with Diplomas from the French National Institute of Agronomy (INA) in Paris in 1943) and from the French National School of Forestry (ENEF) in Nancy in 1947). In 1966 he defended a State Doctoral Thesis in wood physics and for many years he was the only French wood scientist with a French university degree in this field He was member of the French Academy of Agriculture from 1981 and was elected fellow of the International Academy of Wood Science in the same year.

Hubert Polge was a visionary and a pioneer in many aspects. In 1964 when the National Institute for Agronomic Research (INRA) begin to host forestry research, he created the Wood Quality Laboratory, convinced that forestry improvement necessarily should include wood quality as its foundation.

His major contribution might be said to be that he was the pioneer of tree ring x-ray micro-densitometry, basic aspects of which were the theme of his 1966 thesis. The idea was that wood density at the intra ring level is a good indicator of the history of cambial activity in a tree under the combined influence of genetics and environment. Thus, making an x-ray transmission image of an increment core through to the pith, sampled at breast height, provides a non destructive method for determining the course of wood formation during the life of the tree. This technique is still widely used today.

He was also, in the seventies one of the leading wood scientists involved in the revival of wood science in France. This was a real success story, with the annual number of wood science PhDs graduating in France rising from almost none to around 20 per year in less than two decades.

His main achievement was the setting up of a national master course in wood science in the early 1980s. This was the source of almost all today's French wood scientists, who have benefitted through training at Masters and PhD level with the help of University professors from different disciplines outside wood science itself. Hubert Polge himself covered a very wide range of disciplines, from biology to physics, from forestry to wood technology and whose leadership was unquestionable. His name will remain high in the pantheon of French wood scientists.

Bernard Thibaut

FORTHCOMING MEETINGS OF INTEREST TO FELLOWS

A REMINDER!

Annual Meeting of IAWs: Novel Materials from Wood or Cellulose August 31-September 2, 2011, Stockholm, Sweden

The conference will be held at the conference centre Näringslivets Hus, situated in the heart of Stockholm. The conference will present new research in the development of novel materials based on wood and wood polymers.

Topics of interest include:

- Modified Wood materials
- Functional wood materials
- Nanocellulose and nanocellulose materials
- Wood-plastic composites

- Modified wood (heat treatment, polymer modification, mechanical treatment)
- Wood surfaces
- Wood fibres and their modification
- Foams, aerogels and other porous materials
- New materials from lignin, hemicelluloses etc.
- New polymers, adhesives, and binders for wood composites
- Inorganic wood hybrids

For further information see: www.iaws-web.org

2012 IUFRO D5 Conference

The next IUFRO All-Division5 Conference is to be held in Estoril, Portugal July 8-13, 2012. IUFRO, along with the Technical University of Lisbon, would like to extend an invitation to all forest products researchers to participate in this international event.

This conference is designed to bring together researchers in forest products and related fields from around the world. Discussion will embrace progress in research to meet rapidly increasing demands for all kinds of forest products, while maintaining the forest as a source of such products and a resource for social, economic and environmental benefits.

For further information go to <http://www.iufro2012.org/>

COST FP0802 Annual Workshop on „Hierarchical structure and mechanical characterization of wood“ Helsinki, Finland, August 24-26, 2011.

The objective of the workshop is to present and discuss the current status, the technical challenges and the latest research results of the micro-characterization in wood mechanics within and beyond the framework of COST Action FP0802. In addition, the workshop provides a forum to communicate current ideas and strategies in this field. Particular emphasis will be given on assessing the potential of emerging experimental and computational techniques and of combinations of already well-established techniques for investigating the ultrastructural origin of the moisture and time dependence of the mechanical behavior of wood.

The workshop will bring together researchers from different areas of engineering including biology, physics, chemistry, material science, forestry, engineering, etc. Scientists with a general methodological background in material characterization at smaller length scales with no particular focus on wood mechanics are also strongly encouraged to participate.

During the workshop a thematic session on „modeling of thermo-hygromechanically treated wood“ jointly organized with COST Action FP0904 is planned.

Updated information on the workshop and on COST Action FO0802 in general can be found at the webpage <http://cost-fp0802.tuwien.ac.at>

6th Italian Meeting of Lignocellulosic Chemistry

Italic 6

Science & Technology of Biomasses: Advances and Challenges September 5-8, 2011
Tuscia University, Viterbo, Italy

From forest and agricultural biomasses to high added value products: processes and materials

The chemistry and technology of biomass is experiencing a modern renaissance. The mounting pressures in our society to rely on benign resources and eco-efficient technologies have made our science a focal point of activity and interest. More than ever, it is now imperative for our community to adopt schemes of creative information Exchange, promoting collaboration and the development of new science and scientists. Over the past ten years, the Italic series of meetings has fulfilled this mission by providing accessible benefits and opportunities to confer in an ideal setting in the mother land of renaissance.

The ITALIC meetings have been held regularly and the scope has been extended from fundamental and applied aspects of lignocellulosic materials chemistry, biochemistry and technology.

The wide scientific interest emerging in this field both for small and medium enterprises and academy prompted us to focus ITALIC 6 on low environmental impact, high added value products, processes, new materials and fine chemicals from forest and agrobiomass. The aim is to describe the state of the art of international research and to create networks for a further development in the field.

For further information go to:

www.pro-italic.it
italic@stc.uniroma2.it

WOODCHEM® 2011: Strasbourg, France on December 1st and 2nd, 2011.

The congress is an international scientific conference focused on chemical and biochemical valorization of wood and the corresponding biomass.

WOODCHEM® 2011 will cover a wide range of topics related to wood valorization and

wood-based products and will provide an opportunity for scientists, engineers, technology developers, practitioners, policy makers and government officials to showcase leading edge technology for future sustainable large scaled wood-based industries.

Authors are invited to contribute with oral communications and posters related to the topics covered by the congress and to participate in WOODCHEM® 2011.

A special issue of Cellulose Chemistry and Technology Journal (<http://iit.tuiasi.ro/Reviste/reviste1.htm>), with selected papers from WOODCHEM 2011, will be prepared. Authors should send their proposals to the guest editor (Pr. Xavier Deglise, xavier.deglise@lermab.uhp-nancy.fr) before or during the conference. Then, the selected manuscripts with the good format will be subjected to the usual refereeing procedure.

More info on WOODCHEM 2011 on <http://www.woodchem.fr>

BOOKS BY OR OF INTEREST TO FELLOWS

Wood Science to Promote Legal Timber Harvest

Following the successful minisymposium on combating illegal logging convened by Alex Wiedenhoft at the joint IAWS-IAWA conference in Madison last year, the IAWA Journal is dedicating a special issue to its proceedings which also includes a number of additional invited contributions. The resulting book includes 12 chapters, one addressing the interface of wood science and forest and timber policy, six on contributions from wood anatomy, including machine vision, and six on the increasing importance of contributions from molecular biology (DNA analysis) and chemistry (especially infrared spectroscopy). Colleagues involved in the implementation of the CITES legislation will be pleased with the 44 pp. microscopic atlas of all species of CITES-listed tree species by Gasson et al. *Wood Science to Promote Legal Timber Harvest* (ed. Alex Wiedenhoft & Pieter Baas, 176 pp., 2011) can be ordered from the IAWA Office at P.O. Box 9514 (of National Herbarium, NCB-Naturalis), 2300 RA Leiden, The Netherlands (25 € or 35 US\$).

Fichas de propiedades tecnológicas y usos de maderas nativas de México e importadas.

Authors: J.A. Silva Guzmán, F.J. Fuentes Talavera, R. Rodríguez Anda, P.A. Torres Andrade, M.G. Lomelí Ramírez, J. Ramos Quirarte, Christina Waitkus, H.G. Richter.

ISBN 978-607-00-2894-6

Amaya Ediciones, Guadalajara, Jalisco, México. 207 pp.

Price: US\$ 60,00 + US\$ 2,00 for packaging. Additional cost will no doubt accrue for any kind

of money bank transfer, but that cannot be estimated beforehand. For ordering one should approach the first author (Dr. Silva) by e-mail (jasilva@dmcyp.cucei.udg.mx).

The book is written in Spanish and includes tech sheets on 66 timbers used in the Mexican market, both native and imported. It also contains a comprehensive chapter on explanations and procedures, a full bibliography, and a set of high quality colour photomicrographs of transverse (about 12x) and longitudinal (natural size) surfaces. It was recently reviewed in the Journal of the International Association of Wood Anatomists by Fellow Pieter Baas.

BOOK REVIEW

A Compilation of Micrographs on Wood and Wood Products.

Norman P. Kutscha, 79 pp., illus., with additional CD-ROM, 2007. Forest Products Society Publication No. 7225, ISBN 1-892529-49-1. Price US \$49.95 (\$39.95 for members of the Forest Products Society).

Review reprinted from the IAWA Journal 31 page 256 (2010) with kind permission of Pieter Baas.

This compilation is in fact a beautiful atlas of micro- and macrophotographs of wood structure arranged in chronological order in which the author, Norman Kutscha, emeritus advisor on Microstructure and Wood Science of the Weyerhaeuser company in the USA, made during his long and distinguished career. In the preface Kutscha states his threefold aim: 1) to present the more interesting micrographs that resulted from research by his co-workers and himself; 2) to illustrate how the microscopic examination of wood can help to diagnose and solve problems; and finally 3) to provide a selected bibliography of use for the visual and microscopic examination of wood.

Kutscha started his training and career at the SUNY College of Environmental Science and Forestry and was trained by Wilfred A. Cote (IAWA Executive Secretary in the early seventies), one of the great pioneers of wood ultrastructure. The high standards of micrography set by his teachers such as Cote, Core, de Zeeuw and Timell at the SUNY College is maintained in this personal selection of illustrations which not only shows wood microstructure in all its native beauty, but also gluelines in plywood and fingerjoints, softrot cavities in fibre walls, slip planes in softwood, wood coatings, fire retardants in tracheid lumina, bordered pit pairs in SEM and LM views to show penetration or lack thereof by CCA preservative, variously sanded and machined or resin-coated wood surfaces, wood fibre composites, particleboard, kraft liner paper, etc. To me it was a revelation that all these wood-derived products also show great microstructural beauty, not in the least thanks to the clever use of various optical filters. Some of the finest micrographs are from free hand sections. An 11-page bibliography gives selected references by subject headings: microtechnique, staining (subdivided into

helpful categories like adhesives, coatings, decay, penetration, lignin, fluorescence, etc.) and photomicro- and macrography. These selected references will be very useful for technicians and advanced students of wood research.

The illustrations, which also include some diagrams and models of compression wood cell wall ultrastructure and bordered pits, are also given in a high resolution powerpoint presentation on CD-ROM, making them readily available as a teaching aid at both elementary and advanced levels of wood science. In summary, this atlas is a joy to read and consult and a very useful tool to get acquainted with the structure of wood and wood products.

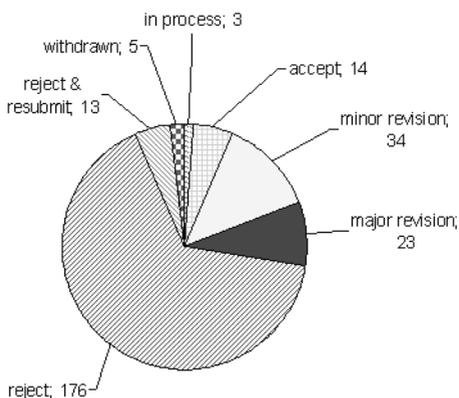
Peter Baas

Editor, IAWA Journal

WOOD SCIENCE AND TECHNOLOGY

Ursula Metzger from the editorial office of the official journal of the Academy has kindly provided statistics showing how the journal is performing. Fellows will be delighted to note the dramatic rise in impact factor over the last five years to a respectable 1.737. There is no doubt that this is a reflection of the hard work put in by Fellow Gerd Wegener and his staff. Fellows are encouraged to submit high quality papers to the journal and to encourage colleagues to do the same.

**Total number of submitted manuscripts WST 2010:
268**



Accept-reject ratio:

accept ratio (2010) 71 : 268 (26 %)

reject ratio (2010) 194 : 268 (72 %)

HIGHLIGHTS

Spiral grain by light transmission: proof of concept

Mark Riddell, Dave Cown, Jonathan Harrington, John Lee

Communicated by Fellow David Cown

Spiral grain measurements are subject to a high degree of variation and interpretation. A new concept was tested whereby light is directed through disc samples on a flatbed scanner and the deviation along the grain assessed by means of a template. Conceptually, this should allow the mapping of grain angle variation radially and tangentially within discs, and with multiple discs, the 3-D mapping of individual stems.

This trial proved that the concept is valid for green discs 25 mm thick from young trees small enough to fit on an A4 paper scanner. Comparisons with traditional scribing and cleaving methods were favourable, and suggested that the light penetration approach could be capable of allowing much faster and more accurate data accumulation.

The possibility of using larger complete discs would enhance the ability to assess spatial variation in grain angle, and minimise the effects of sample reference geometry with respect to the tree axis (disc tilt and parallax). Further work may also be required to ensure that reliable spiral grain values are obtained from both sapwood and heartwood.

The light transmission approach should give much more robust values for incorporating into models for predicting wood performance, because values are based on a larger amount of data, covering the entire growth ring along a chosen radius.

Key Words: Spiral grain, variations, light transmission, assessment method

Synchrotron based tomographic microscopy of wood under compression

M. Zauner a, D. Keunecke a, M. Stampanoni b, P. Niemz a

a IfB, ETH Zurich

b Swiss Light Source (SLS), PSI Villigen

Spatial reconstruction of the wood structure enables temporally resolved observation of the response to mechanical load.

Communicated by Fellow Peter Niemz

The response of wood to mechanical load depends on the composition and distribution of its structural elements. To observe the displacement and deformation of a sample in different stages, non-destructive imaging methods are suitable. With computed tomography, a

sophisticated representative of these methods, spatial information on the material behavior can be obtained. Especially synchrotron based tomographic microscopy with short exposure times, as provided at the Paul-Scherrer-Institut (PSI) in Villigen, makes high-resolution in-situtracking of the material behavior possible.

The goal of a PhD-project in the Wood Physics Group (Institute for Building Materials) is to use synchrotron based tomographic microscopy to generate in-situ 3D-images of wood samples deformed under mechanical load. This non-destructive technique enables observing the sample during the complete loading process – until macroscopic failure is reached. To use the synchrotron beamline TOMCAT at the PSI (Villigen), developing a miniature testing device adapted to the beamline specifications was required. First successful experiments give an impression of the possible imaging quality. Fig. 1 shows the reconstruction of a wooden sample with a diameter of 1.4 mm, Fig. 2 shows a loaded sample. The structural elements – tracheids, wood rays and resin channels – are clearly distinguishable after an overall exposure time of 11 minutes for 1601 single radiograms, enabling interpretation of changes in the loaded wood structure with regards to structure-property relationships.

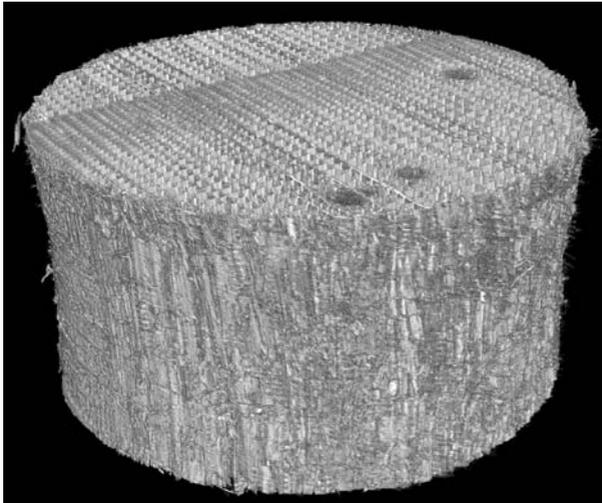


Figure 1

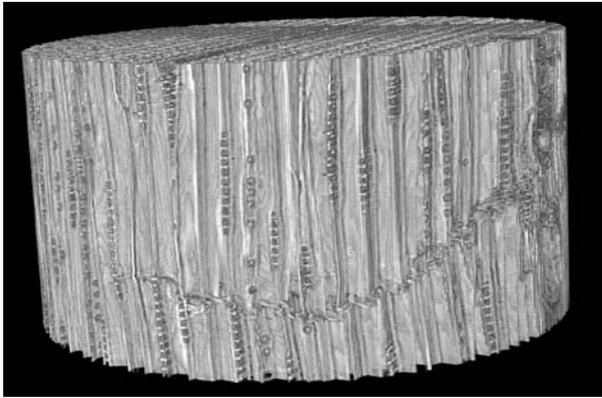


Figure 2

Industrialisation, marketing and sustainable management of ten mexican native species
ITTO Project Serial Number: PD 385/05 Rev.4 (I,F)

Communicated by Fellow Hans Georg (Jorgo) Richter

Introduction

Tropical forests in Mexico have a wide range of species that are lesser known in international or even domestic markets. These species have market potential because of their colour, physical appearance, beauty and technological properties. However, since for centuries all exploration and utilization activities in the region focused on Mahogany (*Swietenia macrophylla*) and Cedro (*Cedrela odorata*), no in-depth technological studies have been carried out to date in order to generate the necessary information to adequately use these other species based on their characteristics and properties. As a result, tropical timber species other than Mahogany and Cedro are currently under-utilised in Mexico, which leads to highly selective logging and eventually to deforestation and tropical forest fragmentation. These species are now only harvested on a non-industrial and regional scale and utilized on the basis of no more than empirical knowledge, which has limited the development of higher value-added innovative products. With supplies of Mahogany and Cedro dwindling and protection of these two species already implemented (Mahogany) or imminent (Cedro), it is now necessary to conduct studies aimed at the characterisation of the lesser known timber species and, on the basis of their technological properties, propose the best uses and maximise their utilisation. The generation of scientific and technological knowledge on the proposed tropical timber species is considered to be an urgent need and an excellent opportunity to promote more profitable timber utilisation activities. Furthermore, it is also important to promote development and

or innovation as appropriate regarding the use of silvicultural management practices for each species so as to ensure the sustainable management of resources avoiding deterioration and enhancing their potential and use.

Last but not least, it is important to identify market mechanisms and niches for both primary and processed products from these species so as to offer foresters viable and attractive alternatives for forest management diversification and for increasing their possibilities for sustainable management. The information generated through the three lines of work envisaged in this project – silvicultural management, technological characterisation and product design as well as marketing of selected tropical Mexican species – will be made available through a free electronic consultation platform known as the National Forest Information System, which is under the responsibility of the National Forestry Commission (CONAFOR).

Executing agency:

Depto. de Madera, Celulosa y Papel (DMCyP), University of Guadalajara

Collaborating agencies:

Depto. de Producción Forestal (DPF), University Of Guadalajara).

Dept. of Wood Science and Engineering (Oregon State University)

Dept. of Wood Technology and Wood Biology (University of Hamburg)

Duration: 36 months, 2009 through 2011

The project identifies the following as the principal factors impeding a better utilisation of Mexican tropical timber species:

- A lack of understanding of forest management plans to promote sustainable utilisation;
- A lack of scientific and technological information on the properties and property-based use of timber species;
- The use of obsolete technology for primary and secondary timber processing; and
- An almost complete lack of knowledge for the selection of products with market potential and the required quality.

The above factors preclude a sustainable, socially and environmentally sound production of tropical timber resources in Mexico. The implementation of the project will be an essential element for decision-making in the strategic planning of production forests in the Mexican tropics, which could become a significant development and economic detonator for the area.

Project objectives

- Ensure the sustainable utilisation, industrialisation and marketing of selected Mexican native tropical timber species with commercial potential.
- Define silvicultural management and production systems for these native tropical timber species in accordance with sustainability criteria.
- Identify the technological (physical-mechanical, anatomical and chemical) characteristics and the industrial potential of the selected species.
- Identify the commercial potential and market niches for each of the selected species according to their technological characterisation, industrial potential and traditional uses.

The project seeks to promote the national development of selected native tropical species with high industrial and commercial potential that have been prioritised for the Mexican tropics. Alas, the project will be relevant not only at the national level but also at the regional level, as the information generated will allow the entire region of Central America to develop sustainable utilization and access to international markets for tropical timber species, whose benefits and qualities are currently used only in a localised and disorderly manner thus seriously jeopardising the future of the country's natural forests.

In view of the above, project planning, development and outputs are linked to users, which will ensure the sustainability of the project as well as its short and long term implementation based on the generated information.

List of studied species

Chact'e viga (*Caesalpinia* spp, 2 especies – FABACEAE-CAESALPINIOIDEAE)

Chechén (*Metopium brownei* – ANACARDIACEAE)

Chico zapote (*Manilkara zapota* – SAPOTACEAE)

Granadillo (*Platymiscium cf. yucatanum* – FABACEAE-FABOIDEAE)

Jabín (*Piscidia piscipula* – FABACEAE-FABOIDEAE)

Machiche (*Lonchocarpus cf. castilloi* – FABACEAE-FABOIDEAE)

Primavera (*Roseodendron donnell-smithii* – BIGNONIACEAE)

Pukté (*Bucida buceras* – COMBRETACEAE)

Ramón (*Brosimum alicastrum* – MORACEAE)

Rosa morada (*Tabebuia rosea* – BIGNONIACEAE)

Tzalám (*Lysiloma latisiliquum* – FABACEAE-MIMOSOIDEAE)

Who has the biggest wood collection?

Communicated by Fellow Pieter Baas

For many decades the Wood Collection of the Forest Products Laboratory in Madison, Wisconsin, USA, was known to be by far the biggest in the world with about 100,000 accessions. In recent years all major institutional wood collections of the Netherlands (three xylaria from Wageningen; the very important Utrecht collection, and the Amsterdam Collection of the Royal Tropical Institute) have merged with the Leiden collection in the National Herbarium branch of the newly formed Netherlands Centre for Biodiversity Naturalis centred in Leiden. The sum total of the wood collections in Leiden now far exceeds the number of 100,000 (although an as yet unknown number of accessions are duplicates from the same original collection). Anyway, Leiden now alleges to have the largest wood collection in the world and will celebrate this with a festive event in September, including a minisymposium on the history and modern significance of wood collections for science and society.

The International Center of Forestry and Forest Industries (ICFFI) of St. Petersburg State Forest Technical Academy

Communicated by Fellow Anatoly Chubinsky

The center was established in 1998. The goal of the Center is development of international cooperation in education, science and business with educational establishments and enterprises of foreign countries including FSU states aiming at integration into the world system of education, science and business and cooperative research activities

The activities of the Center will cover the following branches of forest complex:

Forestry and urban forestry (including environmental protection), Forest exploration, Forest chemical production, Mechanical technology of wood, Machinery and technology of forestry and forest Industries, Economy of forest complex, Information systems and communication in forest complex,

The main directions of the activity of the Center:

In education

- Study and evaluation of secondary (schools, colleges), higher (universities, academies, institutes) and post-graduate (centers of continuing education) education for forestry specialists in different countries. Development and implementation of international programs for training of forest specialists;
- Participation in training programs for Russian and foreign students and specialists, including those oriented on future work at joint ventures and foreign enterprises;

- Exchange of teachers, post – graduate students and students for theoretical and practical training in advanced engineering and technology of landscape gardening, forestry, logging, mechanical and chemical processing of wood, management and marketing;
- Organization of laboratories, field training polygons and educational programs for students and specialists on progressive equipment and environmental safe technologies of leading foreign firms,
- Mutual exchange of bachelor, MSc, phd students and teachers to advance their knowledge of methods of organization educational process and achievements in technologies of the forest complex.

In science

- Attraction Russian and foreign scientists and engineers for joint research and design work. Organization of extensive research and design work projects at the international level;
- Organization of international scientific and technological conferences and seminars, and publication of proceedings in Russia and abroad

In business

- Promoting of cooperation in Russian and foreign businessmen and institutions for the development of mutually advantageous activity in the branches of forestry and forest industries. Promotion of introduction of advanced technologies at enterprises of forest industry and forestry
- Rendering consulting and information services on markets of forest products of Russia. Development of recommendations on rational investment into the Russian forest complex;
- Promotion and assistance in organization of business trips to enterprises of forest, woodworking, pulp and paper, forest chemical industry in FSU countries and Russia;
- Enterprise activities and ownership in enterprises and organizations, including international organizations;
- business and agency activities, including those foreign partners.

The Center works under a managing directorate. The director of the Center is nominated by the State Committee of Higher Education of Russia. Director of the Center is prof. Alexander Alexeev, executive director is ass. prof. Maxim Chubinsky.

**The Institute of Biomass Chemistry and Technology, Beijing Forestry University,
Beijing, P. R. China**

Communicated by Fellow Adya Singh and Prof. Feng Xu (Vice-Director of the Institute).

Research into alternative energy has experienced dramatic growth in recent years, motivated by both the environmental impact of current fossil fuels and uncertain and dwindling supply of oil and natural gas. Lignocellulosic biomass constitutes a renewable energy source and is poised to become the primary source of biomass for biofuels and biochemicals. Utilization of lignocellulosic biomass has the potential to solve pressing challenges facing humanity, e.g. feeding a growing global human population, mitigating global climate change, and the need of many major world economies to resort to fossil fuels. Beijing Forestry University has taken a lead nationally and internationally to advance developments towards efficient utilization of biomass, and is currently undertaking research into efficient isolation of cellulose, hemicelluloses and lignin from agricultural and forest residues.

The Institute of Biomass Chemistry and Technology (IBCT), Beijing Forestry University, Beijing, China was established in 2006, and opened to domestic and international scholars in 2008. Presently, the institute undertakes research in following areas.

1. Morphology, ultrastructure, and chemical composition of cell walls of lignocellulosic materials, especially from non-woody and fast-growing woody plants, with a particular focus on the distribution of lignin and polysaccharides in biomass cell walls.
2. Fractional isolation, structural characterization, and chemical modification of lignin, hemicelluloses, and cellulose as novel biodegradable materials from cereal straws and woods for industrial applications.
3. Development of new and innovative technologies for biomass conversion and biorefining.

The research projects of the Institute of Biomass Chemistry and Technology are mainly supported by funds from the National Natural Science Foundation, the State Forestry Administration and the Ministry of Education. The Institute has hosted visits by leading scientists from Germany, India, Japan, Korea, New Zealand, Sweden, U.K. and U.S.A., and has also developed an extensive international exchange and cooperation with scientists and technologists working in Germany, South Korea, U.K. and U.S.A. .

For more information, please contact institute vice director Prof. Feng Xu
Email: xfx315@bjfu.edu.cn

GUIDELINE FOR HIGHLIGHTS

The purpose of the Highlights, published in the Bulletin, is to promote the integration of the fields of wood science. Fellows are encouraged to submit Highlights to any of the Officers!

Highlights should:

- be free of jargon and highly technical language and (unexplained) acronyms, and be readily understood by wood scientists in other fields
- be no more than 1000 words (roughly 4 pages in the Bulletin)
- begin by providing a brief background or framework to put the report in perspective
- give due credit to the work of others in the field, not just summarize the author's work
- contain important references to the literature for further reading
- finish with a statement of future directions in the area

NOMINATION PROCEDURE FOR ELECTION OF FELLOWS

The nomination process is relatively simple; all you need to do is fill in the Nomination form and send it to me. For those to be considered in the next election, the deadline for receipt of nominations is 30 September.

I then contact the nominee, confirm their willingness to stand for election, and then have them complete the more detailed application form. The Executive Committee reviews the nominees to determine if their applications are complete, and then, in early November, submits the completed applications to the membership for ballot.

Typically, scientists who are nominated are either mid-career, showing great promise and accomplishments, or near the end of their career, when their peers feel that they have made major continuing contributions over their professional life.

There are two areas of Fellowship that are under-represented in IAWS. One is Fellows from developing countries, where the number of refereed scientific contributions, as viewed by the developing world, may be somewhat lacking because of the past or current inability to publish in the leading journals, and/or difficulty with the English language. The other area relates to the few numbers in certain scientific disciplines; if you are in one of those, you are aware of that. The Executive Committee is also interested in election of wood science managers who have had a major impact through their oversight of research activities, without necessarily having the expected number of refereed publications.

Please spend some time thinking about potential nominees, perhaps looking through the Directory (user name: fellows; password: IAWSWOOD) and the listing of Fellows by countries. Since we do not “promote” ourselves to gain members, it is up to the Fellows in the Academy to provide the basis for this recognition.

Lennart Salmén

Nomination for Fellowship of the International Academy of Wood Science

Name of Candidate:

Position of Candidate:

Candidate Mailing Address:

Candidate email address (required!):

Candidate's Background (maximum 100 words):

Reasons for the candidate's nomination (outstanding in his/her field; substantial contributions to wood science; major results in management of research; etc):

Date:

Nominator name:

Email address:

Telephone:

Please return to: lennart.salmen@innventia.com

IAWS



www.iaws-web.org