

XXIV IUFRO World Congress 5-11 October 2014 Salt Lake City, Utah, USA Special Issue / August '14 IUFRO Scientific Awards



SUSTAINING FORESTS, SUSTAINING PEOPLE
THE ROLE OF RESEARCH

The International Union of Forest Research Organizations (IUFRO) honors through a variety of awards those who advance science and promote international cooperation in all fields of research related to forestry.

At each IUFRO World Congress, the following awards for scientific work are presented:

The IUFRO World Congress Host Scientific Awards
Scientific Achievement Award (SAA)
Outstanding Doctoral Research Award (ODRA)
IUFRO Student Award for Excellence in Forest Science (ISA)
Best Poster Award (BPA)

Apart from the Best Poster Award winners, who will be chosen during the Congress, all award winners have already been selected and are presented in this special issue.

IUFRO WORLD CONGRESS HOST SCIENTIFIC AWARD

The Congress Host Scientific Award honors truly outstanding and accomplished scientists from the Congress host country who have elevated the profile of forest science and research.

The Host Scientific Award will be presented during the Opening Ceremony of the Congress on Monday, 6 October 2014.

SCIENTIFIC ACHIEVEMENT AWARD (SAA)

Awards will be made for outstanding research published in scientific journals, proceedings of scientific meetings or books, or appropriate patents or other relevant evidence that clearly demonstrates the importance of the nominee's achievements to the advancement of regional or world forestry or forest research. Other criteria of judgment are dissemination of results, implementation of knowledge, methods or techniques in practical forestry and skilled research management, and involvement in IUFRO activities.

The SAA will be presented during the Opening Ceremony of the Congress on Monday, 6 October 2014.

OUTSTANDING DOCTORAL RESEARCH AWARD (ODRA)

Awards will be made for path-breaking doctoral dissertations within six years after completion of the dissertation. In order to be judged as outstanding the work should be relevant, show innovative thinking, use appropriate methodology, and the results should already have been presented or published and made available to the scientific community and transmitted to stakeholders.

The ODRA will be presented at the sub-plenary session "Triumphs, tribulations and transitions – the graduate research experience from the IUFRO Student Award winners" on Friday, 10 October 2014.

BEST POSTER AWARD (BPA)

Awards will be made for outstanding poster presentations at the IUFRO World Congress, for quality of research design, presentation of data, organization and neatness of the poster. Research suitable for the Best Poster Award may be self-contained, or part of a larger project or a preliminary communication from a study yet to be completed or published.

Special mention of the award winners will be made during the Congress Closing Ceremony on Saturday, 11 October 2014.

IUFRO STUDENT AWARD FOR EXCELLENCE IN FOREST SCIENCE (ISA)

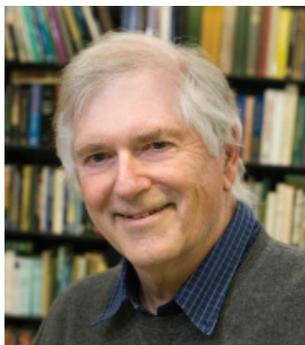
This award recognizes outstanding individual achievements in forest science made by Master's degree students (or equivalent), and is to encourage their further work within the fields of research covered by the Union.

The ISA will be presented at the sub-plenary session "Triumphs, tribulations and transitions – the graduate research experience from the IUFRO Student Award winners" on Friday, 10 October 2014.

Find out more about IUFRO awards for scientific work and for services to IUFRO on our website: www.iufro.org !

IUFRO World Congress Host Scientific Award Winners 2014

Stephen Hubbell



Dr. Stephen HUBBELL is a Distinguished Professor of Ecology and Evolutionary Biology at UCLA, and an internationally renowned ecologist for his research on tropical rainforests and theoretical ecology.

He is the co-founder and co-director of the Center for Tropical Forest Science - which manages a global network of large permanent tropical forest research plots and monitors natural populations of more

than 6,000 tropical tree species - and is the founding chairman and a board member of the National Council for Science and the Environment, an organization with more than 10,000 members and more than 200 universities and professional societies. The NCSE's mission is to improve the scientific basis of environmental decision-making. Issues the organization addresses include biodiversity conservation and the extinction crisis.

He earned his B.A. from Carleton College in 1963 and his Ph.D. from UC Berkeley in 1969. Hubbell, who joined UCLA's faculty in 2007, is a fellow of the American Academy of Arts and Sciences, a fellow of the American Association for the Advancement of Science, and a Guggenheim fellow. He is author of the unified neutral theory of biodiversity and biogeography, which explains the diversity and relative abundance of species in ecological communities.

Harold E. Burkhart



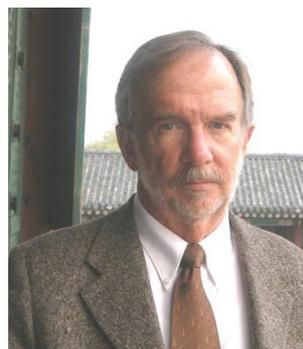
Dr. Harold E. BURKHART has been a faculty member in Virginia Tech's Department of Forest Resources and Environmental Conservation since 1969 and now serves as a University Distinguished Professor. He earned his B.S. in Forestry from Oklahoma State University and his M.S. and Ph.D. in Forest Biometrics from the University of Georgia.

Burkhart served as department head from 1995 to 2008 and was a Senior Research Fellow at the Forest Research Institute in Rotorua, New Zealand. A leading innovator in forest biometrics, Burkhart has published extensively on forest growth and yield prediction, and forest inventory and sampling. He is lead author of the advanced-level book "Modeling Forest Trees and Stands" and co-author of the textbook "Forest Measurements."

His contributions to forestry research and education have earned him IUFRO's Scientific Achievement Award, the Society of American Foresters Barrington Moore Memorial Award, the Forest Landowners Association Forest Champion of the Year, the Virginia Academy of Science J. Shelton Horsley Research Award, the Virginia Tech Alumni Award for Research Excellence, and recognition as Virginia's Outstanding Scientist. A former editor of the journal

Forest Science, Burkhart is a Fellow in the American Association for the Advancement of Science and the Society of American Foresters.

Chadwick Dearing Oliver



Dr. Chadwick Dearing OLIVER is the Pinchot Professor of Forestry and Environmental Studies and Director of the Global Institute of Sustainable Forestry at the Yale School of Forestry & Environmental Studies.

His early work focused on the basic understanding of how forest stands develop and can be managed silviculturally. Much of this research was summarized in Forest

Stand Dynamics, a seminal volume published in 1990 (updated in 1996) with co-author Dr. Bruce Larson. Dr. Oliver has continued this research, expanding it globally and focusing on how this understanding can help resolve scientific, technical, environmental, and management issues at the landscape and global levels. His Landscape Management System - a downloadable, computer based tool for managing timber resources, wildlife habitat, carbon sequestration, and fire protection - has been used widely to analyze and visualize the effects of disturbances and management on landscapes.

Dr. Oliver has authored more than 150 publications; including journal articles, book chapters, and symposia proceedings. He has served on Boards of Directors of foundations and companies, Editorial Boards, government advisory panels, and Ph.D. committees of students from many parts of the world. He received a B.S. from The University of the South and his M.F.S. and Ph.D. from Yale University. He has been on the faculties of The Harvard Forest, the University of Washington, Middle East Technical University, and now Yale University.

Wangarii Maathai Award



The Collaborative Partnership on Forests (CPF) will provide the Wangari Maathai award to one extraordinary individual for improving our forests and the lives of people who depend on them! This award honors and commemorates the impact of this extraordinary woman who championed forest issues around the world.

The awardee will receive a cash prize of USD 20,000 along with international recognition of their outstanding contributions to preserve, restore, and sustainably manage forests; and to raise awareness of the key role forests play in supporting local communities, rural livelihoods, women and the environment. The Wangari Maathai Award, given for the first time in 2012, was created by CBD, CIFOR, FAO, GEF, ICRAF, ITTO, IUCN, IUFRO, UNCCD, UNDP, UNEP, UNFCCC, UNFF and World Bank; all members of the CPF. An international jury is currently reviewing nominations. *The 2014 award will be given at the IUFRO World Congress on Monday 6 October, 18:15-18:45, in the Ballroom.*

Scientific Achievement Award Winners 2014

Sally Aitken

Dr. Sally AITKEN is able to link original and creative research to issues that have important social and economic implications both in western Canada and world-wide.



Working with other scientists world-wide and with the associates and students in her lab, Dr. Aitken is developing a comprehensive body of theoretical knowledge on the evolutionary biology and adaptation of trees species, and applying this knowledge to the development of methods and tools that allow better decision making in applied forest management. At the present time,

the AdapTree genomics project is linking new developments in genomics with climate modelling, evolutionary biology, and economic analysis. This integrated work is bringing together disparate disciplines such as genomics and climate science in order to extend the theoretical base and address the issues facing the forest industry and provincial agencies with responsibilities for massive annual reforestation programs that are part of a key industry and socio-economic driver.

This research will lead to unique solutions and methods for the assisted migration of reforestation stock to address the increasing genetic maladaptation of reforestation stock in western Canada due to climate change. The project has drawn the interest, participation, and funding support of the provincial Ministry of Forests Lands and Natural Resource Operations and forest companies.

Jürgen Bauhus

Dr. Jürgen BAUHUS has worked in forest research institutions on 3 continents, and his research is not only truly international, but he is also one of the few silvicultural scientists with important research contributions in native, semi-natural and plantation forests. His research is characterized by the quest to unravel the relationships between forest structure, composition and function, above ground and below ground, regardless of the complexity of ecosystems studied. The contributions to biodiversity and mixed-species research helped to increase the social acceptance of forestry. Although the work is strongly grounded in fundamental research, its applied aspects have advanced silvicultural practices in many regions.



Dr. Bauhus is a dedicated mentor for young scientists and has introduced many young researchers to IUFRO. During the past three decades Dr. Bauhus has developed a highly visible international profile, not only through his studies at leading universities in Germany, Australia, and Canada, and his remarkable publications in international journals, but also as the initiator and coordinator of international teaching programs at the University of Freiburg.

Benjamin Cashore

Dr. Benjamin CASHORE has established himself as one of his generation's preeminent scholars in the fields of forest governance and forest policy.



His many scholarly contributions to the study of the complex array of transnational and non-governmental forces shaping the way in which forests are governed today have advanced global understanding of the challenges and opportunities of securing these forests for future generations. His studies are landmarks in the application of the social sciences to forestry issues, including key findings on the

strengths and limitations of non-state governance, on the underlying causal relationships between international and national forest policy, and on the role of learning in the governance of sustainable forest management all over the world.

Dr. Cashore's work has illuminated the symbiotic roles of government and business in bringing about solutions to some of the most difficult problems facing forestry and the environment today, including illegal logging, the degradation of tropical forests, and the impacts of climate change. By highlighting potential pathways for "ratcheting up" standards or enforcement, he has consistently been a voice of hope for finding progressive incremental solutions to the most difficult of issues.

Richard Hamelin

Dr. Richard HAMELIN is a pioneer in the field of molecular forest pathology. Over the last 20 years, he has innovated by integrating molecular biology and genomics into forest pathology with the aim to answer questions related to pathogen detection and monitoring, population dynamics, and ecology. His main achievements are the translation of genomics into molecular diagnostic and detection tools, the development of a platform for molecular diagnostics of forest pests, and the monitoring of the impact of transgenic trees on microbial diversity. He has also focused on the study of molecular epidemiology of forest pathogens, host-pathogen interactions as well as the genomics of the mountain pine beetle-blue stain fungus-host interaction.



His multidisciplinary approach to answering complex research questions, along with his capacity for bringing together scientists of various expertise, has led Dr. Hamelin to become an inspiring model for young scientists as well as for more experienced colleagues.

Christopher Eric Harwood



Dr. Christopher Eric HARWOOD's significant long-term research and applications address the ecology, genetics, breeding, plantation deployment and wood utilization of Australian tree species. He has pioneered key initiatives in genetic improvement and seed orchard development, and studies on tree reproductive biology of acacia, eucalyptus and *Grevillea robusta*.

His work has advanced understanding of the science that underpins successful tree breeding which delivers improved germplasm to tree growers in the tropics. His contributions to capacity building in tropical countries have been exceptional. He achieved these through provision of many scientific and technical training courses, supervision of post-graduate students and mentoring younger scientists in-country, travelling tirelessly to work with and encourage them. In Australia, he is respected research manager who has guided teams of scientists affiliated to a range of parent institutions, each with its own culture and protocols of administration. He has led major research efforts for dryland forestry, improving the value of plantation grown eucalypts for solid- and engineered-wood product processing and applications.

Dr. Harwood exemplifies the values and spirit of IUFRO by reaching out, beyond his national borders, to support scientists, forest science and application of research internationally.

Shibu Jose



Dr. Shibu JOSE's research has helped address ecological sustainability challenges of forested ecosystems at local, national and international levels with global impacts. His research program has the overarching goal of identifying and quantifying key ecological processes and interactions that define ecological sustainability of forested ecosystems.

He examines how resource availability (e.g., light, water, nutrients, carbon) and disturbances (e.g. management interventions, fire, exotic invasions) influence ecosystem structure and function (e.g. productivity, nutrient cycling) in natural forests, short-rotation plantation forests and agroforests. He uses the ecological information in designing agroforestry systems and restoring degraded and damaged forest ecosystems.

He has over 200 scholarly publications to his credit. Over the past 20 years his research team has conducted projects in the U.S., Australia, Costa Rica, Panama, Belize, Ukraine, Bangladesh, Pakistan, and India. He has been very active professionally and has been involved in organizing many forestry and agroforestry conferences nationally and internationally. He also has led the development of two successful online graduate programs for place-bound forestry professionals to help them continue their formal education.

Robert A. Kozak



Dr. Robert A. KOZAK has spent the majority of his research career as a professor of sustainable business management in the Faculty of Forestry at the University of British Columbia, and is now the head of the Department of Wood Science.

He has authored or co-authored over 200 papers and spoken at over 150 conferences around the world on business topics ranging from wood use in non-residential

construction, value-added wood products, supply chain management, forest certification, corporate social responsibility, and most recently, poverty alleviation and community wellbeing. Working with colleagues from around the world and students in his lab, he has been a pioneer in the creation of a 'new wave' of business research within the forestry domain which focuses on conservation-based business management practices that promote sustainability of our global forest resources. This work is interdisciplinary in nature and Dr. Kozak sees his role as being a researcher who 'connects the dots' between the complex and multifaceted issues that occur in the world of forestry at the nexus of social, economic, and ecological realms.

Aino Annikki Mäkelä Carter

Dr. Aino Annikki MÄKELÄ CARTER has been professor of silviculture/forest production at the University of Helsinki, Finland, since 2005. She integrates the Forest Modelling Group, a research unit of the University Department of Forest Sciences, involved in modelling eco-physiological processes and growth of trees and stands.



The primary objectives of her work have been: (1) to increase understanding of the growth, production, and population dynamics of boreal forests, (2) to translate the advances in knowledge into quantitative models, and (3) to make eco-physiological theory and knowledge more readily usable in practical applications. As research method she used construction of mathematical

models in order to express biological hypotheses, derive and analyze their implications, and test the results against independent measurements.

Dr. Mäkelä Carter is best known for her pioneering work in dynamic models of trees and stands, which translate material balances and structural models of trees into information and forecasts that are useful to both the research and forest management communities. Much of her early work is summarized in her well-known CROBAS and PIPEQUAL models. The theoretical approaches and practical formulations that she implemented in those models are now used in many forest models around the world.

Jolanda Roux



Dr. Jolanda ROUX has firmly established herself as an expert on fungal diseases of trees on the African continent and beyond. She has made a huge impact by sharing her scientific expertise in consultations on tree health problems in technologically deprived regions of Africa. She has made consultations in Kenya, Ghana, Congo, Uganda, Tanzania, Zambia and Madagascar.

Her work in these areas has included diagnosis of tree health problems both in commercial plantation forests but also in biologically sensitive and endangered forests of Euphorbia and Adansonia ("Baobab"). By sharing her knowledge, Dr. Roux has made a tremendous impact in solving both economically important and ecologically crucial problems in technologically underserved portions of Africa.

As a mentor of graduate students and postdocs, Dr. Roux has also had a major impact on the development of forest science in South Africa and the entire African region. She has advised an exceptionally large number of students from a diversity of geographic origins.

Dr. Roux is passionate about her work and certainly an outstanding role model especially for young women in science.

Guiseppe Scarascia Mugnozza



Dr. Guiseppe SCARASCIA MUGNOZZA's work at the leading edge of forest science focused on understanding the effect of climate change on the forest environment. He developed new methods for exposing whole trees to elevated atmospheric CO₂, pioneering ecosystem-level assessment of forest productivity and carbon sequestration by eddy covariance. His vision and consensus-building skills were instrumental in developing novel

infrastructures for investigation forest responses to climate change under realistic conditions.

He has a highly-recognized international reputation. He was among the first to demonstrate the impact of elevated CO₂ on forest tree species and ecosystems, with participation in European research projects since the early 1990s and served as coordinator of a major research initiative, the FACE infrastructure on a mixed poplar stand. He contributed fundamental knowledge to the action mechanisms of carbon incorporation into forest soil.

Very few scientists have the scientific credentials and exemplify the IUFRO spirit to a greater extent than Dr. Scarascia. He is an inspiring supervisor and mentor of forest students and young scientists. He is founder of the Italian Society of Silviculture and Forest Ecology, and of the international journal iForest, which is rapidly emerging as a well-recognized open-access ISI journal in the forest sector.

Outstanding Doctoral Research Award Winners 2014

Jan R. Bannister Hepp

Dr. Jan R. BANNISTER HEPP, Germany/Chile, carried out his doctoral research about the dynamics and restoration of *Pilgerodendron uviferum* forests on Chiloé Island in North Patagonia between 2009 and 2012 at the Institute for Silviculture at Freiburg University, Germany and won the GreenDoc award for the best PhD thesis in 2012.



Dr. Bannister's excellent and exemplary dissertation was carried out in the emerging field of restoration silviculture. Based on fundamental ecological research on the largely understudied, heavily

exploited and important native species "*Pilgerodendron uviferum*", he analyzed in a generic form population structure, dissemination, regeneration and growth process of this species, and developed recommendations for active and passive approaches to restore forest ecosystems and landscapes formerly dominated by this species.

His recommendations are already put into practice. The approach Jan Bannister developed in his PhD thesis is a blueprint for future work in ecological restoration of native trees species about which we have little knowledge.

Susana Barreiro

Dr. Susana BARREIRO, Portugal, has been an innovative doctoral student who has made substantial contributions to the development of large-scale simulations models.



Her dissertation reflects the modification and adaptation of existing methods to include the effect of several drivers such as wood and biomass demand, forest fires, land-use changes, forest management modifications and climate change. This effort required the integration of features of both empirical and process-based models, a task that was both technically and biologically challenging.

ShuaiFei Chen



Dr. ShuaiFei CHEN, China, received his Ph.D. from the Forestry and Agricultural Biotechnology Institute (FABI) at the University of Pretoria, South Africa, in 2011. While he conducted his research in Eucalypt breeding at the China Eucalypt Research Centre, Chinese Academy of Forestry, he realized that the eucalypt plantations in China were threatened by a growing number of diseases. His PhD thesis entitled "Fungal Diseases of

eucalypts in P.R. China" provides the most extensive study of fungal pathogens of eucalypts in China to date. Research results of his Ph.D project provided a foundation for eucalypt fungal disease research in China.

During his post-doctoral research in South Africa and California, he kept on building his research experience on tree pathology and improving himself. Recently, he and his colleagues in China and South Africa have built a research team, the CERC-FABI Tree Protection Programme (CFTPP), which is a cooperative venture programme established between the China Eucalypt Research Centre (CERC) and the Forestry and Agricultural Biotechnology Institute (FABI).

César Pérez Cruzado



Dr. César Pérez CRUZADO, Spain, has been considered for the ODRA for two main reasons.

The first is the outstanding productivity in terms of publications. His doctoral research work has been published in 10 papers (with two others under review), one full book, three book chapters, 18 contributions at conferences and one patent. The research was funded through 4 national research

projects and contracts and one European project. Moreover, Dr. Cruzado produced 3 papers and made 5 contributions to conferences in research topics related to the PhD dissertation.

The second reason is the extraordinary usefulness of the results of the doctoral research. The experiments and models developed as part of his doctoral research enable policymakers and landowners to make management decisions in terms of forest plantations established over former agricultural land, with carbon sequestrations as an objective. This type of land use is important in Europe and particularly in Spain, where 1.4 M ha of former agricultural land has been reforested in the last 50 years (5% of total forest area).

The results of the doctoral research are also a good starting point for future studies related to management activities for reforestation projects under the REDD+ program in developing countries.

Puneet Dwivedi



Dr. Puneet DWIVEDI's research work takes an integrative approach to ensure sustainable management of forest resources worldwide. He is a leading researcher in the area of utilization of wood-based bio-energy products for mitigating carbon emissions in the United States.

As a part of his doctoral dissertation work, he analyzed the sustainability of utilizing woody

feedstocks for bioenergy development in southern regions of the United States by focusing on all three components of sustainability, i.e. environment, social, and economic in an inclusive manner. For his first chapter, he successfully determined emissions and energetic content of wood-based bioenergy products using life-cycle assessment. For his second chapter, he evaluated economic impacts of emerging voluntary carbon and bioenergy markets on forest landowner's profitability using optimization and risk assessment models. Finally, he quantified perception of four stakeholder groups on forest biomass-based bioenergy development.

Currently he is in the process of extending his doctoral research work in the context of developing and under-developed countries to assess the future of forest governance and its impact on forest resources in the presence of competing demands of energy, conservation, and livelihoods at grass root levels.

Zhun Mao



Dr. Zhun MAO pursued his Ph.D. far beyond of what was required of him to obtain the actual degree. His working hypothesis with regard to tree root growth was that tree roots can grow all year round, as long as the soil does not freeze.

Against his supervisor's advice, and at this field site in the French Alps (altitudes up to 2000m),

Dr. Mao braved temperatures to -20°C whilst sitting in holes in the ground/snowpack, to measure root growth every 3-4 weeks during the year and over a period of 2.5 years. Zhun's hypothesis was proven correct, and he demonstrated that soil temperature is a major driver of root growth in these forests.

With regard to the applied aspects of Dr. Mao's research, i.e. using forest vegetation to improve slope stability, he has advanced significantly this area because of his meta-analysis of root reinforcement, and the development of modelling approaches, which he is further developing in his post-doc at IRSTEA, France. Through his difficult fieldwork and empirical modelling, Dr. Mao was able to demonstrate the most important factors contributing to slope stability along a forested slope, an area which is a priority for many governments worldwide. The mitigation of hill slope instability is an area where reliable data and quantified, peer-reviewed research are scanty.

Sandra Rodríguez Piñeros



Dr. Sandra RODRÍGUEZ PIÑEROS's thesis "The Role of Analysis and Deliberation in Changing Community Preferences for Strategies and Indicators of Sustainable Forest Management" addresses the major challenge in the implementation of sustainable forest management plans in developing countries. The methodology developed and demonstrated in the thesis provides a means to identify community values toward

a specific forest resource. Based on community values, the thesis demonstrates how facilitated discussions and analysis are conducted by the community which leads to the adoption by the community of the principles of sustainable forest management.

The thesis further demonstrates how adopted principles are used in the preparation and implementation of a working forest management plan which is supported by the community. In the case of this thesis, the resulting forest management plan was formally adopted and has been implemented by the village of la Preciosita Sangre de Cristo, the Secretaría del Medio Ambiente y los Recursos, and the Universidad Popular Autónoma del Estado Puebla, which is cooperating in the economic development of the village.

Eli Sagor



Dr. Eli SAGOR, USA, conducted his PhD study at the University of Minnesota, USA. His dissertation "Personal Networks and Private Forestry: Exploring Extension's Role in Landowner Education" is transformative work that provides ground-breaking empirical research to guide new extension investments throughout the United States.

Applying basic social network analysis methodology, Dr. Sagor investigated the role of personal networks in the flow of information and adoption of sustainable forest management behavior in Minnesota. Dr. Sagor's analysis of social networks to investigate and explain the ways private woodland owners communicate and learn reflects a transformative change in woodland owner research and in how education programs aimed at woodland owners will be conducted.

Much of the previous research on private woodland owner behavior is based on the expert model of learning where woodland owners' relationship with professionals is emphasized. Dr. Sagor's work focused on personal networks "including relationships between landowners and their peers as well as natural resource professionals".

Huei Shing Sik



Dr. Huei Shing SIK, while working as a junior research officer in the Forest Research Institute Malaysia (FRIM), she pursued her MSc study on the application of high temperature treatment on rubberwood lumber as a non-toxic physical treatment means to replace the use of borates as a main preservative for rubberwood treatment. Dr. Sik's doctoral research work focused on developing a two-in-one method for rubberwood processing, via drying-cum-high temperature treatment for accelerated throughput of environmentally friendly rubberwood furniture dimension stocks.

The extension of the doctoral research work, from the development of a commercial size prototype high temperature treatment drying (HTDTM) system in FRIM campus to a commercial production unit with the collaborative effort of a local rubberwood-based industry partner is a commendable effort by the candidate, and a proud achievement of the institution in encouraging the wood-based industries to be a part of the green community besides helping them to gain a competitive edge in the global market.

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Student Award for Excellence in Forest Sciences Winners 2014

Julius B. Adewopo



Julius B. ADEWOPO, Nigeria/USA, has made outstanding contributions to research and leadership in wood utilization and in forestry. His MSc thesis has critical relevance to the wood industry because it fills a much needed information gap about the effect of heat treatment on six different mechanical properties of wood.

Mr Adewopo's research is timely and indispensable for the advancement of the forest products industry because it provides essential information that can further promote sustainability in wood preservation while ensuring that strength properties of wood-in-service are not compromised. Due to the immense relevance of his research work, he was awarded as one of the top three graduate student researchers at the International Forest Products Society Convention at Madison, WI in 2010.

As a continuing demonstration of his contribution to wood products research, Mr Adewopo is currently serving as a reviewer for the *Bioresources Journal*, which is a leading journal focused on the advancement of research in wood biopolymer and utilization.

Tolulope Daramola

Tolulope DARAMOLA, Nigeria, obtained his BSc degree from the Federal University of Technology Akure, Nigeria, in 2008, and within 5 years established an environmental initiative called Carbon Sink Development. He served as President of the International Forestry Students Association (IFSA), and as a member of the Governing Council of the Commonwealth Forestry Association, among other things. He became a member of UNFF Major Groups as a representative of the Youth Major Group, showing an analytical mind and a disposition and ability to work with all types of people (scientists, indigenous people representatives, government officials and NGOs).



He wrote his MSc thesis on the "Assessment of nitrogen fertilization on growth yield and carbon storage in above ground biomass of a managed Douglas fir forest stand in the Pacific Northwest and the application in the sub-Saharan Africa".

Md. Mohitul Hossain

Md. Mohitul HOSSAIN from Bangladesh obtained an MSc in Forestry from the University of Chittagong, Bangladesh and is currently following courses for MSc in Forest Ecology and Management at the University of Freiburg, Germany and an MSc in European Forestry at the University of Eastern Finland (Erasmus Mundus programme).



Mr Md. Mohitul Hossain has profound research and communication skills, a sound knowledge base, as well as ability to plan and execute research work. He has been involved in forestry research since his undergraduate program, and has already published his previous Master thesis "Soil erosion under different plantations in CHTs, Bangladesh", as a book and his Bachelor thesis in an international journal. Md. Hossain has also published several other scientific papers during his assistantship in different research projects.

Sharif Ahmed Mukul

Sharif Ahmed MUKUL is an outstanding Masters graduate who is currently undertaking a PhD at the University of Queensland, Australia. He obtained a triple MSc in Agricultural Development from the University of Copenhagen, in Tropical Forestry and Management from the Technical University Dresden, Germany and in Forestry from Shahjalal University of Science and Technology in Bangladesh.



Mr. Mukul's thesis dealt with changes in swidden cultivation practices amongst an ethnic minority group in central Nepal. In preparing and conducting the field work and data collection for his thesis, Mr. Mukul showed a lot of initiative, perseverance and flexibility. He himself was the driving force in finding and establishing contact with the study communities. Through his field work he showed that he is capable of navigating and working in unfamiliar cultural contexts and with minority groups stigmatized by main stream society. He managed to convey the complex and manifold nature of pull and push factors governing the abandonment vs. continuation of swidden cultivation in his study sites.

Mika Yoshida

Mika YOSHIDA, Japan, obtained her MSc from the University of Tokyo. Her research interest is focused on the efficient utilization of natural resources as Japan progresses from a dramatic recovery from nuclear disaster and an over-dependence on nuclear energy. She successfully analysed the appropriate chipping site of logging residues for her bachelor degree, and succeeded in calculating the limit of transportation distance when using the terminal landing.



The focus of Ms Yoshida's work as an MSc student was to improve the efficiency of forest biomass feedstock supply through cost reduction and improved logistics on harvesting, chipping and transportation. Ms Yoshida's work has developed innovative logistics systems of forest biomass that resulted in lower cost and higher efficiency of feedstock production and delivery than conventional ways. Her study has high potential for having a positive impact on the existing biomass supply chains in Japan and other countries, as well as small-scale forestry that often suffers from high costs and low productivity.

Ivana Zivojinovic

Ivana ZIVOJINOVIC, a Serbian national based in Austria, obtained her engineer's degree at the Faculty of Forestry in Belgrade at the department of Landscape Architecture and Horticulture. In 2013, she received a double MSc in European Forestry from the University of Natural Resources and Life Sciences in Vienna and the University of Eastern Finland in Joensuu.



Over the past years, Ms Zivojinovic has shown a continuous commitment to research in urban forestry. She took an active role in projects and events in urban forests, and has been awarded the "European Young Urban Forester of the Year 2012" at the European Forum on Urban Forests (EFUF) in Leipzig in 2012. Her master thesis "The perception of decision-makers to climate change adaptation in urban and peri-urban forests of Belgrade" explores one of the hot issues regarding nowadays environmental problems which urban forests face. Ms Zivojinovic intends to begin her PhD in Forest Policy with the main focus on perceptions to climate change in forestry.