# DAILY SCIENTIFIC PROGRAM

# 2014 TABLE OF CONTENTS

#### **SCIENTIFIC PROGRAM**

Week at a Glance	3
Monday 6 October	5
Tuesday 7 October	22
Thursday 9 October	53
Friday 10 October	76
Saturday 11 October	105
Poster Information	117

# WEEK AT A GLANCE

	Mon	day 6 Oct	ober		Tuesday 7	7 October			Thursday	9 October	
Room	11:00 - 12:00	13:30 - 15:00	15:30 - 18:00	08:00 - 10:30	11:00 - 12:00	13:30 - 15:00	15:30 - 18:00	08:00 - 10:30	11:00 - 12:00	13:30 - 15:00	15:30 - 18:00
Ballroom	P-01				P-02				P-03		
150 A			A-04	A-20A			A-20B	B-12			A-24
150 B			A-25	A-01			A-34	A-26			A-28
150 C			A-30	A-38			C-07	B-18			A-33
150 D			A-21	C-17			C-01	G-14A			G-14B
150 E			B-04	C-19			C-14	C-16			B-17
150 F			G-10	C-26			C-21	D-02A			D-02B
150 G			C-24	E-01A			E-01B				B-02
151 A			F-16	F-18			G-02	A-14			A-15
151 B			C-09	F-05			F-10				D-09
151 C			D-01	G-07			F-13				F-12
151 D			A-06	A-05			A-13	A-19			B-08
151 E			E-07	G-16			G-11				G-03
151 F			F-06								
151 G			E-03	B-07A			B-07B				F-01
155 A-C		SP-02	-1	I-2		SP-08	I-3			SP-11	
155 D-E		SP-01	A-02	D-05A		SP-05	D-05B			SP-09	B-10
155 F		SP-03	B-11	B-19A		SP-06	B-19B	F-09A		SP-10	F-09B
250 A			C-22	A-27A			A-09	E-04A			E-04B
250 B			F-17	E-08A			E-08B	F-15			A-07
250 C			A-17	A-03A			A-03B	G-06			B-15
250 D			A-35	A-18A			A-18B				C-06
250 E			B-14	B-05A			B-05B				C-10
250 F			G-01	C-04			G-17				C-25
251 A-C		SP-04	C-05	C-08		SP-07	A-27B	C-20		SP-12	C-23A

		Friday 10	October		Satur	day 11 Oc	tober
Room	08:00 - 10:30	11:00 - 12:00	13:30 - 15:00	15:30 - 18:00	08:00 - 10:30	11:00 - 12:00	13:30 - 15:00
Ballroom		P-04				P-05	
150 A	A-37A			A-37B	D-07		
150 B	A-16			A-32	A-31		
150 C	A-29			C-15	C-18		
150 D	B-03			A-12	B-01		
150 E	B-06A			B-06B	D-04		
150 F	C-30			C-28	E-05		
150 G	E-02A			E-02B	A-11		
151 A	C-11			F-07	C-02		
151 B	D-03			E-06	F-02		
151 C	D-08			F-03	F-14		
151 D	F-04			D-06	C-13		
151 E	G-05			F-08	G-08		
151 F	G-13			G-09	G-18		
151 G				G-04	C-27		
155 A-C			SP-16				SP-19
155 D-E	B-09A		SP-13	B-09B			SP-17
155 F	F-11A		SP-14	F-11B	B-20		SP-18
250 A	A-08A			A-08B	G-15		
250 B	A-22			A-23A	A-23B		
250 C	G-12			B-13	A-10		
250 D	B-16A			B-16B	A-36		
250 E	C-03			C-29			
250 F	C-12A			C-12B			
251 A-C	C-23B		SP-15				

# NOTES

# Daily Scientific Program MONDAY 6 OCTOBER

# NOTES

# MONDAY 6 OCTOBER - PLENARY SESSION 11:00-12:00

#### Plenary 1: Andy Buchanan: Modern Timber Buildings from Sustainable Forests

Room:	Ballroom
Session Chair:	Andrew Wong
Description:	This paper describes the huge opportunities for engineered wood to be used for constructing modern timber buildings. This is essential for a greener future on our planet, to reduce world-wide dependence on energy and CO2 intensive materials like concrete and steel, by moving to engineered wood to construct homes, factories and offices for growing populations. To promote the design and construction of engineered timber buildings, it is necessary to develop new wood-based materials, to manage the wood supply chain, and to encourage research and innovation by design professionals, and to remove institutional barriers. This is not always easy. The paper describes a New Zealand example, where many of the jigsaw pieces were in place for modern timber buildings in the rebuild of Christchurch following the massive 2011 earthquakes. New Zealand has a mature forest industry, largely based on exotic plantations of radiata pine, and a growing wood processing industry, focusing on LVL. Timber engineering is taught and researched in New Zealand universities, and local structural engineers are leading the world in innovative low-damage seismic design. The paper will describe a successful industry-government research partnership supporting modern timber buildings in New Zealand. Demonstration buildings have been proposed for Chicago (42 stories), Vancouver (30 stories), and design is well underway for a 14-story building in Ottawa, with the support of the Canadian government.

# MONDAY 6 OCTOBER - SUB-PLENARY SESSIONS 13:30-15:00

#### SP-01 Forest Foods, Medicines And Human Health

Room:	155 E					
Organizers:	Hannu Raitio (Finnish Forest Research Institute), James Chamberlain (U.S. Forest Service, USA), Carsten Smith-Hall (University of Copenhagen, Denmark) & Tuija Sievänen (Finnish Forest Research Institute)					
Moderators:	James Chamberlain & Carsten Smith-Hall					
Description:	This session will explore the state of knowledge on how forests around improve human health and well-being, and the values and challenges services into forest management.					
	A Global-Comparative Analysis Of Household-Level Incomes From Environmental Food Products	Carsten Smith-Hall	Denmark			
	From Forest To Pharmacy - Drug Development From Nature Based Molecules	Kristiina Wahala	Finland			
	Food Security, Food Sovereignty, And Urban Forests	Marla R. Emery	United States			
	Wildlife: A Forgotten And Threatened Forest Food Resource	Robert Nasi	Indonesia			
	Integrating Forest Foods And Medicines Into Sustainable Forest Management	James Chamberlain	United States			

SP-02 Integ	prating The Economics Of Ecosystem Services Into Susta	ainable Forest Managen	nont			
Room:	155 A-C					
Organizers:	Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi State University, USA) & Lidija Zadnik-Stirn (University of Ljubljana, Slovenia)					
Moderator:	Lidija Zadnik-Stirn (University of Ljubljana, Slovenia)					
Description:	This session will examine specific ecosystem services and the state-of-the art in estimating their values. The session also will address how they have affected sustainable forest management globally - emphasizing issues/barriers to incorporating ecosystem services, identified research needs, appropriate scales for implementation, and innovative methodologies for measuring the inherent multifunctionality of ecosystem services.					
	The Role Of Bioenergy As An Ecosystem Service	Donald Grebner	United States			
	Influence Of The TEEB DE Study On Forest Reporting And Management	Elisabeth Kindler	Germany			
	Current Status And Future Research Directions For Assessing Water	Donald Hodges	United States			
	As An Ecosystem Service					
	As An Ecosystem Service Valuation Of Ecosystem Services Using The Life Satisfaction Approach	Shashi Kant	Canada			
SP-03 Fore: <i>Room:</i>		Shashi Kant	Canada			
Room:	Valuation Of Ecosystem Services Using The Life Satisfaction Approach st Health In A Changing World					
	Valuation Of Ecosystem Services Using The Life Satisfaction Approach st Health In A Changing World 155 F					
Room: Organizers: Moderators:	Valuation Of Ecosystem Services Using The Life Satisfaction Approach <b>st Health In A Changing World</b> 155 F Tod Ramsfield (NRCan-Canadian Forest Service) & Eckehard Brockerho	off (Scion/New Zealand Forest F dynamics, pathway manageme	Research Institute) ent and global trade, science-			
Room: Organizers:	Valuation Of Ecosystem Services Using The Life Satisfaction Approach <b>st Health In A Changing World</b> 155 F Tod Ramsfield (NRCan-Canadian Forest Service) & Eckehard Brockerhoff Tod Ramsfield & Eckehard Brockerhoff This session will examine the role of global change on pest population	off (Scion/New Zealand Forest F dynamics, pathway manageme	Research Institute) ent and global trade, science-			
Room: Organizers: Moderators:	Valuation Of Ecosystem Services Using The Life Satisfaction Approach <b>st Health In A Changing World</b> 155 F Tod Ramsfield (NRCan-Canadian Forest Service) & Eckehard Brockerhor Tod Ramsfield & Eckehard Brockerhoff This session will examine the role of global change on pest population of policy interactions and forest resilience to promote sustainable forest en Loss Of Resilience Leads To Low Productivity In A Chilean	ff (Scion/New Zealand Forest F dynamics, pathway manageme cosystems under changing cor	Research Institute) ent and global trade, science- nditions.			
Room: Organizers: Moderators:	Valuation Of Ecosystem Services Using The Life Satisfaction Approach <b>st Health In A Changing World</b> 155 F Tod Ramsfield (NRCan-Canadian Forest Service) & Eckehard Brockerhof Tod Ramsfield & Eckehard Brockerhoff This session will examine the role of global change on pest population of policy interactions and forest resilience to promote sustainable forest en Loss Of Resilience Leads To Low Productivity In A Chilean Hardwood Forest	off (Scion/New Zealand Forest F dynamics, pathway manageme cosystems under changing cor lan Thompson	Research Institute) ent and global trade, science- nditions. Canada			

## SP-04 The IUFRO Directors' Forum: Crossing Science Boundaries For The Benefit Of Forests And People

Room:	251 A-C		
Organizers:	Konstantin von Teuffel (Baden-Württemberg Forest Research Institute - Forests - BFW), Jimmy Reaves (U.S. Forest Service)	– FVA, Germany), Peter Mayer (	PM) (Austrian Research Centre for
Moderators:	Peter Mayer & Konstantin von Teuffel		
Description:	Research in forestry increasingly needs to cross the boundaries of scie organize, fund and manage research in order to maintain the relevanc and people in the future.	•	
	Introduction To The IUFRO Forests For People Strategy	Konstantin von Teuffel, Jimmy Reaves & Peter Mayer	Germany, United States, Austria

Presentation Of IUFRO Director's Survey Results	Jimmy Reaves	United States
Panel Discussion: Management Strategies For Research Beyond Borders	Ann Bartuska, Mike Wingfield, Martin Apple, Tony Simons (tbc) and Leena Paavilainen (tbc)	United States, United States, South Africa, Kenya, Finland
Open Discussion		
Conclusions	Peter Meyer & Konstantin von Teuffel	Austria, Germany

# MONDAY 6 OCTOBER - TECHNICAL SESSIONS 15:30-18:00

## // FORESTS FOR PEOPLE

## A-02 (169) Forests And Human Health: The Role Of Research Towards Evidence-Based Practice

Room:	155 E					
Organizers:	Takahide Kagawa (Forestry and Forest Products Research Institute, Japan) & Liisa Tyrväinen (Finnish Forest Research Institute)					
Moderators:	Liisa Tyrväinen & Takahide Kagawa					
Description:	This session will focus on research methodologies and recent findings on the effects of forests on human health, and the application of these findings into medical practices, landscape planning, recreational use of forests, and nature-based tourism.					
	The Spread Of Forest Therapy In Japan	Takahide Kagawa	Japan			
	A Study On The Healing Effect Of Korean Forestry	Jeonghee Lee	Republic of Korea			
	Forests For Wood Production And Human Wellbeing – What Are The Trade-Offs In Long-Term Forest Management Planning?	Eva-Maria Nordstrom	Sweden			
	The Nature, Health & Design Lab- Research On Nature Qualities	Ulrika K. Stigsdotter	Sweden			
	The Influence Of Urban Nature Environments On Stress Relief — A Field Experiment	Liisa Tyrväinen	Finland			
	Long-Term Monitoring Of Health Effects Of Urban Forests In Hangzhou, China	Bing Ye	China			
	Physiological Effects Of Wooden Odors On Humans: Evidence From Laboratory Experiments	Yuko Tsunetsugu	Japan			
Poster Presei	ntations:					
	The Perception Of Internet Users Regarding Human Health Benefits Provided By Urban Green Areas	Daniela Biondi	Brazil			
	Sovereignty Of Indonesian Biodiversity Conservation And Health Through Development Of "Kampung Konservasi"	Ellyn Kathalina Damayanti	Indonesia			
	A Study Of Japanese Attitudes Toward Coniferous Forests And Pollen Allergy	Mari Kawase	Japan			
	Green Spaces At The Work Place And Allergic Sensitization Of Office Workers In The City And Forest	Jeonghee Lee	Republic of Korea			

Analyzing The Willingness For Cooperation Between Forest And Health Experts In Improving People's Health In Germany	Katharina Meyer	Germany
A Cost-Benefit Framework For Urban Green Areas In The Case Of Intensifying Urban Development	Mika Rekola	Finland
The Effects Of Forest Therapy Utilizing Regional Abandoned Forests In Japan	lwao Uehara	Japan

# A-04 (88) Resilience And Identity With Urban Forests: A Landscape System Approach

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Room:	150 A		
Organizers:	Wybe Kuitert (Seoul National University, Republic of Korea), Cheng Wang (Chinese Academy of Forestry), Giovanni Sanesi (University of Bari, Italy) & Amila Brajic (FOPER-University of Sarajevo, Bosnia-Herzegovina)		
Moderators:	Giovanni Sanesi & Cheng Wang		
Description:	This session will examine recent research on the historical, cultural, and natural landscape systems underlying urban areas and their potential to enhance resilience and identity of cities through appropriate planning, development, and management of urban forests.		
	Long-Term Landform Transformations In A Suburban Forest Using Aerial Photographs And Dems Generated From Historical Topographic Maps	Akemi Tamaki (Itaya)	Japan
	Determination And Estimation Of Temporal Changes In Land Cover In Northern Forest Of Istanbul, Turkey	Muhittin Inan	Turkey
	Improving Urban Forest Management Using Remote Sensing Technologies Along Major Transport Corridors In Sydney, Australia	Mingzhu Wang	Australia
	Water Management For Urban Forestry: A Case Study On Urban Parks In Seoul	Shawn Hu	Republic of Korea
	The Effect Of Mega-Flood Disaster On Tree Species Diversity In Bangkok Metropolis And Suburban, Thailand	Nisa Leksungnoen	Thailand
	Old Growth Urban Forests: Synthetic Research Methodology And Historical Continuity Management	Robert Loeb	United States
	Greenspace Infrastructure And Public Perception Of Representative Country Parks In Beijing, China	Yadong Qi	United States
	Perceived Restorativeness Of Different Urban Green Typologies Of Two Cities In Italy	Giovanni Sanesi	Italy

# A-06 (252) Forest-Dependent Community Development

Room:	151 D		
Organizer:	Tuija Sievanen (Finnish Forest Research Institute)		
Moderator:	Tuija Sievanen		
Description:	This session will focus on research of rural communities in which fores subsistence, health, and culture.	sts are an important asset for liv	velihoods, incomes,
	Contribution Of Gum And Resin Commercialization To Rural Livelihood In The Drylands Of Ethiopia And Sudan	Asmamaw Alemu Abtew	Germany
	Conservation By People For People: Impacts Of Community-Ngo Partnership On Forest Conservation And Livelihood Of Riparian People	Rodrigue Castro Gbedomon	Benin
	Community Perceptions Of Environmental And Socio-economic Benefits From Forest: An Exploration In Four Protected Areas Of Costa Rica	Sergio Molina Murillo	Costa Rica

	Rose Jane Peras	Philippines
	Siddharth Sareen	Denmark
e Field Work To The Improvement Of Indigenous	Alipse Valera	Peru
	Andrea Vasquez	Canada
	Ider's Assessment Of Community-Based Forest And The Potentials Of Redd Plus o Access? Indigenes And Forest Resources In A ed Indian Region used Forest Management: An Experience That e Field Work To The Improvement Of Indigenous Livelihood sociations In The Peruvian Amazon: The erspectives	And The Potentials Of Redd Plus       Rose Jane Peras         o Access? Indigenes And Forest Resources In A       Siddharth Sareen         ed Indian Region       Siddharth Sareen         used Forest Management: An Experience That       Alipse Valera         e Field Work To The Improvement Of Indigenous       Alipse Valera         uvelihood       Andrea Vasquez

## A-17 (189) Linking Landscape, Forests And People: The Historical Roots Of Biocultural Diversity

Room:	250 C		
Organizers:	Mauro Agnoletti (University of Florence, Italy), Jinlong Liu (Renmin University)	ersity of China) & Steven Ander	son (Forest History Society, USA)
Moderator:	Mauro Agnoletti		
Description:	This session will explore the historical development of biodiversity patterns associated with "natural" and "cultural" landscapes, including local and landscape-level traditional forest management practices and uses of biodiversity, and the evolution of policies affecting biological and cultural diversity and heritage.		
	Impact Of Ancient Maya Land Use On Present-Day Forests	Nicholas Brokaw	United States
	The Italian National Register Of Historical Rural Landscapes	Mauro Agnoletti	Italy
	"Sustainable" Ecological History? A Story Of Forest Management Practices Out Of The Official Silviculture Along 1000 Years Of Landscape Dynamics	Fabio Salbitano	Italy
	Disturbance History Of The Medicine Bow Range, Wyoming, Using Historical Documents, Contemporary Forest Inventory, And Lake Sediment Cores	Vachel Carter	United States
	Contributions To Human Well-Being From Sharing Ecosystem Services Through Non-Market Social Networks In Satoyama Landscapes	Chiho Kamiyama	Japan
	Assessing The Impact Of Changes In Biodiversity On Food Security Of Local Communities: The Case Of The Fatick Province, Senegal	Antoine Sambou	Denmark
	Influence Of Culture On Greening The Environment In Ido Local Government Area Of Ibadan, Nigeria	Adebayo John Julius	Nigeria

# A-21 (113) Coppice Forests: A Tradition With Future

Room:	150 D		
Organizer:	Gero Becker (Albert-Ludwigs-University Freiburg, Germany)		
Moderator:	Gero Becker		
Description:	This interdisciplinary session will discuss historical and contemporary coppice forests and their management, including such topics as traditional and advanced products, protection functions, biodiversity, climate change adaption, traditional versus modern short rotation systems, and governance regimes.		
	Sustainable Coppice Forest Management In The Balkan	Peter Kampen	Macedonia
	Harvesting Traditional Coppice Stands In The Northwestern Italian Mountains	Raffaele Spinelli	Italy

	Study The Potential Of Lebanon Oak (Quercus Libani Oliv.) For Coppice Regeneration In Northern Zagros Forests Of Iran	Manfred Lexer	Austria
	Valuable But Threatened: How The Abandonment Of Traditional Forest Management Systems Influences The Occurrence Of A Rare Tree Species	Patrick Pyttel	Germany
Poster Prese	ntations:		
	Ecological Complexity, Stand Basal Area And Rooting Intensity Respond Differently Under Edaphic Drought In Ecotones At Abandoned Coppice Forests	Tamalika Chakraborty	Germany
	Potential Production Of Short Rotation Coppice Willow In Denmark	Søren Larsen	Denmark
	Eucalypt Coppice Management For Rurally Based, Small-Scale Timber Growers In South Africa	Keith Little	South Africa
	Sycamore Maple (Acer Pseudoplatanus L.) Potential For Coppicing: A Case Study	Valeriu-Norocel Nicolescu	Romania
	The Effect Of Harvesting On Stump Mortality And Re-Sprouting In Aged Oak Coppice Forests	Patrick Pyttel	Germany
	Hybrid Aspen Coppice Forest For Energy In Hemiboreal Estonia	Hardi Tullus	Estonia

# A-25 (16) Reforming Forest Tenure And Governance For Mitigating Climate Change And Improving People's Livelihoods

Room:	150 B		
Organizer:	Runsheng Yin (Michigan State University, USA) & Shashi Kant (University of Toronto, Canada)		
Moderator:	Runsheng Yin		
Description:	This session addresses the knowledge gaps and policy challenges encountered in implementing forest tenure and governance reforms, based on the experience of China, India, and Eastern Europe, and the advances of institutional economics.		
	Understanding Tenure Security In The Implementation Of Reforms: Clarifying Concepts And Methods	Mani Banjade	Nepal
	Today And Tomorrow Of Private Forestry In Central And Eastern Europe	Michał Zasada	Poland
	Role Of Devolved Governance In Enhancing Incentives In Participatory Forest Management In Kenya	Joram Kagombe	Kenya
	Promoting REDD+ Through Community Forestry In Lombok Island, Indonesia	Dodik Ridho Nurrochmat	Indonesia
	Forest Tenure Rights, REDD+ And Livelihoods In Thailand	Surin Onprom	Thailand
	China's Forest Tenure Reforms In The New Century: What Remains To Be Pursued And How To Get It Achieved?	Runsheng Yin	United States

#### A-30 (37) Achieving Policy Integration Across Fragmented Domains: Forest Policy Perspectives

Room:	150 C
Organizers:	Karl Hogl (University of Natural Resources and Life Sciences, Austria) & Daniela Kleinschmit (Swedish University of Agriculture Sciences)
Moderators:	Karl Hogl & Daniela Kleinschmit
Description:	This session will review the state of the art in policy coordination and integration literature for describing and analyzing the evolving relationships within and between a number of substantive resource policy sectors, in particular taking a forest policy perspective.

Integrating Multiple Environmental Regimes: Land And Forestry Policies Under Broader Democratic Reforms In The Bolivian Tropical Lowlands	Wil de Jong	Japan
Multi-Level Governance Of Forests In A Changing Climate: International Influence On Swedish Forest Policy.	Sara Holmgren	Sweden
Integration Of Bio-Energy Policy - A Multi-Sectoral Frame Analysis	Daniela Kleinschmit	Sweden
Multistakeholder Approach For The Development Of New National Forestry Sector Strategy In Nepal	Ram Prasad Lamsal	Nepal
Study On Forest Policy Coordination And Cooperation: Take A Case Of Collective Forest Tenure Reform In China	Meng Yuan	China
Forests In The Non-Forest Policies: How Much Room Is Left To Forest Decision Making?	Bart Muys	Belgium
The Need For Forestry To Understand And Respond To Indirect Impacts Of Climate Change	Carl Olof Olle Olsson	Sweden
The European Forest Policy Paradox – How Policy Integration Fails Through Practices Of Sectoral Polarization	Georg Winkel	Germany

## A-35 (72) The Social Education Of Foresters

Room:	250 D		
Organizers:	Lisa Hansen (IFSA/University of British Columbia, Canada) & Louise Fortmann (University of California at Berkley, USA)		
Moderators:	Siegfried Lewark, University of Freiburg, Germany)		
Description:	This technical session examines the importance of, and challenges for, integration of social sciences into forestry curricula, emphasizing the changes in learning outcomes that are needed to meet the needs of tomorrow's foresters.		
	Teaching Foresters About Gender, Property And Why They Matter	Louise Fortmann	United States
	Social Dynamics And Integrative Methods In Forestry Science Education	Bianca Baerlocher	Switzerland
	Promoting Gender Competence Of Forestry Students – Experiences From Gencom International Spring School	Marion Karmann	Germany
	Facilitating Social Learning To Improve Collaboration Between Forest Managers, Stakeholders And Communities	Susan Kocher	United States
	Solving Problems In Forest Landscapes: Definition, Practice, And Barriers Of Transdisciplinary Research	Per Angelstam	Sweden
	Does Counseling Matter? An Analysis Of Forest Advisors' Influence On Forest Management Practices	Daniel Sjödin	Sweden
	Barriers To Updating University Forestry Curricula	John Innes	Canada

## // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

## B-04 (170) Long-Term Forest Research On Forest Ecosystem Management

Room:	150 E
Organizers:	Hosang Kang (Seoul National University, Republic of Korea), Xingguo Han (Institute of Applied Ecology, Chinese Academy of Sciences) & Björn Hånell (Swedish University of Agricultural Sciences)
Moderators:	Hosang Kang & Batkhuu Nyam-Osor (National University of Mongolia)

Description:	This session will provide a forum for scientists engaged in long-term interdisciplinary forest research to share their experiences and to promote cross-site research collaboration and networking to examine key research questions at larger scales.		
	Shelterwood Method In Hemiboreal Conditions As An Alternative To Clear-Cutting For More Efficient Ecosystem Services Management.	Hardi Tullus	Estonia
	Vegetation And Soil Interactions During An 80-Year Succession In Forest Stands In The Moricsala Island Nature Reserve, Latvia.	Guntis Brumelis	Latvia
	Variable Retention Harvesting And Sustainable Forest Management In The Boreal Forest Of Canada: Lessons Learned From The Emend Experiment	Jaime Pinzon	Canada
	A Study On Long Term Monitoring Of Major Planting Trees In Korea	Yeongwan Seo	Republic of Korea
	Forest Observational Studies Network For Growth Modelling And Long-Term Ecological Monitoring	Vindhya Prasad Tewari	India
	Use Of Bioindicator For Protected Area Management And Ecological Monitoring In The Western Himalayan Landscape, Uttarakhand, India	VP Uniyal	India
	A Preliminary Analysis Of Long Term Dynamics Of Venezuelan Tropical Forests: Evidences From Field-Based Plots	Emilio Vilanova	Venezuela

#### **B-11 Forest Management For Wildlife Conservation**

Room: 155 F Organizers: Thomas Rooney (Wright State University, United States) & Nobuhiro Akashi (Hokkaido Research Organization, Japan) Moderators: Thomas Roonev This session will feature recent studies from around the world that highlight the importance of forest management for wildlife Description: conservation, an increasingly important issue in research and for managers. An Evaluation Of The Effects Of Sika Deer On Forest Regeneration Nobuhiro Akashi Japan Based On Observation Of Browsed Shoots The Attractiveness Of Managed Scots Pine Forests In Different Age Poland Witold Grzywinski As A Foraging Site For Bats Epigaeic Beetle Assemblages In Boreal Forests – Relationships To Therese Johansson Sweden Environmental Factors And Management History Long-Term Effects Of Forest Management On Reindeer Grazing In Anu Korosuo Sweden Northern Sweden: A Scenario Analysis Approach Partial Retention Harvest Benefits Songbird Assemblages In The Sonya Odsen Canada Boreal Forest Of Canada Simulating The Long-Term Effects Of Tree Retention And Forest Set-Asides On The Availability Of Biodiversity Structures At The Jean-Michel Roberge Sweden Landscape Scale Bird And Insect Pollinators Respond Similarly To Aspen Forest Stand Amber Roth United States Development In Northern Wisconsin, USA The Effects Of Landscape Heterogeneity And Ungulate Density On Alejandro Royo United States Understory Vegetation In Northwestern Pennsylvania Pinyon Jay Nest And Cache Site Selection In Pinyon-Juniper United States Chris Witt Woodlands Of The Great Basin

#### B-14 (52) Ecosystem Services Provided By Planted Forests

250 E
250

*Organizers:* Peter Freer-Smith (Forest Research, UK), Eckehard Brockerhoff (Scion, New Zealand) & Jean-Michel Carnus (National Institute for Environmental and Agricultural Science and Research, France)

Moderators:	Peter Freer-Smith		
Description:	This session will present new research from around the world on the range of ecosystem services provided by planted forests, on the valuation of ecosystem services, and on their relevance to forest management and policy.		
	International Congress Of Planted Forest : Main Issues And Research Needs For Planted Forests	Jean-Michel Carnus	France
	Biodiversity And Productivity Of Planted Forests	Juergen Bauhus	Germany
	Ecosystem Services Of Planted Forests Through Provision Of Habitat	Cormac O'Callaghan	Ireland
	Effects Of Planted Forest Biodiversity On Pollination Services	Hisatomo Taki	Japan
	Forest Plantation Landscape Management For Water Ecosystem Services Provisioning In Brazil	Silvio Ferraz	Brazil
	Ecosystem Services Of UK Woodlands: Downscaling Scenarios And Assessments From National To Landscape Scale	Chris Quine	United Kingdom
	Promoting Management Practices Targeting The Conservation Of Biodiversity And Ecosystem Services In Cork Oak Landscapes	Miguel Bugalho	Portugal
	The Economic Value Of Forest Ecosystem Services Provided By New Zealand's Planted Forests	Tim Payn	New Zealand
	Managing Plantations Worldwide To Benefit Forest Biodiversity And Enhance Ecosystem Services	Robert L. Deal	United States

## // FORESTS AND CLIMATE CHANGE

C-05 (92) G	ender, Participation, And Climate Change		
Room:	251 A-C		
Organizers:	Bimbika Sijapati Basnett, Esther Mwangi (CIFOR, Indonesia), Peter Cron	nkleton (CIFOR, Peru) & Terry Su	underland (CIFOR, Indonesia)
Moderators:	Bimbika Sijapati Basnett		
Description:	This session will focus on challenges, opportunities, and outcomes of securing women's participation in forest governance and link this with issues and experiences in climate change adaptation and mitigation with the aim of providing suggestions for how to strengthen women's meaningful participation in decisions and benefits, improve policy targeting, and mitigate risks in climate change.		
	Challenges, Opportunities, And Outcomes Of Women's Participation In Forest Governance: Lessons From CIFOR's Research	Herry Purnomo	Indonesia
	Challenging Perceptions About Men, Women, And Forest Product Use: A Global Comparative Study	Terry Sunderland	Indonesia
	Forest Governance, Gender, And Social Inclusion And REDD+ In Nepal	Madhu Ghimire	Nepal
	Does Forest Decentralization Strengthen Women's Adaptive Capacity To Climate Change In The Congo Basin? Insight From Cameroon	Anne Marie Tiani	Cameroon
	Are Women More Vulnerable To Climate Change And Other Interacting Stressors In The Rural Eastern Cape, South Africa?	Sheona Shackleton	South Africa
	Developing Strategies For Reddes Activities In Selected Pilot Areas In Cameroon, Ghana, And Nigeria	Ernest Foli	Ghana
	Response To Climate Change In Canadian Forest-Based Communities: Does Gender Matter?	Maureen Reed	Canada

C-09 Dendrochronology: Detecting And Modelling Climate Change And Fire Impacts			
Room:	151 B		
Organizers:	Pekka Saranpää (Finnish Forest Research Institute)		
Moderators:	Pekka Saranpää		
Description:	This session will examine dendrochronology as an indicator of climate of different regions.	change and disturbance events	in forest ecosystems
	Responses Of The Radial Growth Of Trees To Climate Change At The Timberline In Southeast Tibetan Plateau	He Shang	China
	Seasonal Distribution Of Processes Responsible For Radial Diameters And Wall Thickness Of Scots Pine Tracheids	Galina Antonova	Russian Federation
	Fire Impact On The Structure And Dynamic Of Prosopis Caldenia Woodlands In The Argentinean Pampas	Stella Bogino	Argentina
	Site Selection For Dendroclimatological Studies With Bertholletia Excelsa	Patricia Mattos	Brazil

## C-22 (74) Advances In Forest Carbon Measurements And Monitoring For Building REDD+ MRV Systems

Room:	250 A		
Organizers:	Yasumasa Hirata (Forestry and Forest Products Research Institute, Japan) & Andrew Lister (U.S. Forest Service)		
Moderators:	Yasumasa Hirata & Andrew Lister		
Description:	This session aims to exchange scientific knowledge on forest carbon measurement and monitoring for building the REDD+ MRV systems, including topics such as forest inventory development, forest carbon measurement protocols, uncertainty analysis, integration of forest inventory and remote sensing data for estimating forest carbon stocks, and related works.		, uncertainty analysis,
	Strategies For Forest Measurement And Monitoring In Colombia	Edersson Cabrera Montenegro	Colombia
	Quantifying Forest Disturbances As Input To Carbon Budget Models In Southeast Mexico	Vanessa Silva Mascorro	Canada
	The Development Of Allometric Models For Prediction Of Above- And Below Ground Biomass For All Major Forest Types In Tanzania	Tron Eid	Norway
	REDD+ And Wildland Fires: The Contribution Of Satellite Observation Systems	Luigi Boschetti	United States
	Above Ground Biomass Estimation Based On Lidar And HJ Data In Subtropical Forest	Yuan Zeng	China
	Measuring Tropical Forest Degradation From High-Resolution Remote Sensing Imagery And Field Data For Building A REDD+ MRV System In Mexico	Jaime Paneque-Gálvez	Mexico
	Use Of Remote Sensing For Forest Monitoring At A National Level In REDD+ Implementation	Yasumasa Hirata	Japan
	Advance And Challenge Of Remote Sensing In Assessing Tropical Forest Biomass Of Malaysia	Hamdan Omar	Malaysia

Temperate	20100		
Room:	150 G		
Organizers:	Andreas Bolte (Thünen Institute of Forest Ecosystems, Germany), John Copenhagen, Denmark)	Stanturf (U.S. Forest Service) 8	Palle Madsen (University of
Moderators:	John Stanturf		
Description:	Topics to be discussed in this session will include native and non-native species and provenance suitability under climate change, adaptive management options to assist forest adaptation, and effective knowledge diffusion among different scales, researchers, politicians, and practitioners.		
	Adaptive Forest Management In Global Temperate Forests – Pathways For A Co-Operative Network Concept	Andreas Bolte	Germany
	Identifying Potential Tipping Points In Forest Ecosystems Using Vegetation Function Traits And Microclimatic Indicators	Peter Hobson	United Kingdom
	Europe-Wide Analysis Of Douglas-Fir Provenance Trials: Insights Into Assisted Migration To Address Climate Change	Miriam Isaac-Renton	Canada
	Refugial Populations – A Source Of Increased Genetic Diversity For Improved Forest Adaptation Capacity	Palle Madsen	Denmark
	Field Experiments And Models As Decision Support For Forest Management Under Increasing Drought Risk	Andreas Rigling	Switzerland
	Utilizing The Intraspecific Variation In Climate Response To Select Appropriate Douglas Fir Provenances For European Plantations In Future Climates	Silvio Schueler	Austria
	Potential Of Thinning To Mitigate Drought Stress In Trees – A Meta-Analysis	Julia Sohn	Germany
	Performance Of The Selected Northern-American Tree Species Introduced In Central Europe	Michał Zasada	Poland

# C-24 (75) Adaptive Forest Management Under Climate Change – Networking From Local To Global Scales In The Temperate Zones

#### // FORESTS AND WATER INTERACTIONS

#### D-01 (257) Long-Term Watershed Studies: What Have We Learned About Eco-Hydrological Functioning

Room:	151 C		
Organizers:	Shirong Liu (Chinese Academy of Forestry) & Xiaohua Wei (University of British Columbia, Canada)		
Moderators:	Shirong Liu and Xiaohua Wei		
Description:	This session will focus on the value of tong-term watershed studies as sources of baseline information on how ecosystems and hydrologic systems function, with a particular emphasis on their importance for assessing impacts of, and adaptation to, climate change.		
	Alteration Of Flow Regimes Caused By Large-Scale Forest Disturbances And Its Ecological Implications	Xiaohua Wei	Canada
	The Hydrologic Impacts Of Long-Term Afforestation In An Upland Watershed In North-Central Portugal	Daniel Hawtree	Germany
	Effects Of Contemporary Harvest Practices On Water Yield And Snowpack Dynamics In The Continental-Maritime Region Of The USA	Jason Hubbart	United States
	Rational Density For Balancing The Water Yield And Other Services Of Larch Plantation In Liupan Mountains Of Northwest China	Yanhui Wang	China
	Forests, Land Use Change, And The Water Regime Over Half A Century In The Blue Nile Basin Of Ethiopia	Kevin Bishop	Sweden

Republic of Korea

United States

Japan

Impacts Of Reforestation Of Denuded Land On The Streamflow Regime In A Weathered Granite Mountain Area

Ecosystem Dynamics Controlled By The Seasonal Distribution Of Precipitation In Forests Of Interior Alaska

Seventy-Seven Years Variation Of Annual Evapotranspiration In Small Watershed With The Forest Restoration And Succession On Denuded Hills

#### // FOREST BIOMASS AND BIOENERGY

#### E-03 (53) Evaluation Of Environmental Impacts Of Production And Use Of Wood Products And Wood Energy

Hyung Tae Choi

John Yarie

Koichiro Kuraji

Room:	151 G		
Organizers:	Richard Bergman (U.S. Forest Service) & Adam Taylor (University of Tennessee, USA)		
Moderators:	Richard Bergman		
Description:	This session will use Life Cycle Analysis approaches and methodologies issues related to carbon flows, emerging biomass-conversion technologies		
	GHG Profile Of An Advanced Pyrolysis Unit Using Woody Biomass	Richard Bergman	United States
	Local Air Quality Impacts Of Advanced Biofuels In The Pacific Northwest: A Consequential LCA Approach	Indroneil Ganguly	United States
	Landscape-Level Net GHG Analysis Of Forest-Based Material And Energy Systems	Leif Gustavsson	Sweden
	Lessons From Consecutive LCAs Of Plywood And OSB In The USA	Adam Taylor	United States
	Life Cycle Assessment Of A Fuel Switch To Biomass: The Case Of A Direct-Fired Boiler Gasification Energy System	Lal Mahalle	Canada
	Improving The Resource Efficiency Of Wood Consumption – An LCA Study On Wood Cascading	Klaus Richter	Germany
	Environmental Impact Assessment Of China's Forest-To-Pulp Supply Chain	Wei Xu	Germany
	Effects Of Forest Management On Timber And Energy Biomass Production And Climate Change Mitigation Potential In Norway Spruce	Antti Kilpeläinen	Finland
	Incorporating Carbon Sequestration Into The Feedstock LCA For Residual Woody Biomass	Francesca Pierobon	Italy
	Modeling The Effects Of Forest Management And Wood Products Use On Carbon Budget In Context Of Climate Change	Hubert Jochheim	Germany

#### E-07 (160) Genomics And Biotechnology For Improvement Of Woody Energy Crops

Room:	151 E
Organizers:	Carl Douglas (University of British Columbia, Canada)
Moderators:	Carl Douglas
Description:	This session will present current research on optimizing woody biomass plantations for bioenergy, natural variation in bioenergy and biomass traits, genetic and genomic approaches to tree domestication for bioenergy uses, and biotechnology for bioenergy biomass optimization.

Target Enrichment And Exome Sequencing For Marker Discovery In Eucalypt Species	Modhumita Dasgupta	India
Variation In Resistance Of Populus Nigra Within And Among Provenances To Septoria Musiva	Kelsey Dunnell	United States
Understanding The Social Context Of Strategies To Develop Biofuels From Optimized Populus Feedstocks In British Columbia	Howie Harshaw	Canada
Insect Feeding On GM Aspens Is More Affected By Intentional (BT Induction) Than Of Unintentional Changes Or Clone Differences In Plant Defense	Joakim Hjälten	Sweden
Fungal Pretreatment Of Lignocellulosic Biomass By Wood Rot Transformants	Myungkil Kim	Republic of Korea
Silver Birch (Betula Pendula): A Novel Model Tree For Molecular Genetics	Kaisa Nieminen	Finland
Resistance Breeding Against Two Major Forest Diseases - Conifer Root Rot And Rust In Willows	Jan Stenlid	Sweden

#### // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

## F-06 (125) Impact Of Forest Certification On Sustainable Forest Management

Room:	151 F		
Organizers:	Wenming Lu (Chinese Academy of Forestry, China), Robert L. Deal (U.S. Forest Service) and John Innes (University of British Columbia, Canada)		
Moderators:	Wenming Lu & Robert Deal		
Description:	This session will assess different aspects of forest certification, including impacts on forest management and timber markets, effects for forest workers and communities affected by certified forest management, quality of certification audits, and governance and authority of certification schemes.		
	Evaluation Of Tropical Forest Management Certification	Francis Putz	United States
	Challenges Of Forest Certification In China	Wenming Lu	China
	FSC - Chain Of Custody (COC). Analysis Of Companies With COC In Spain And Brazil	Carmen Aviles	Spain
	Logging Concessions And Local Governance: Social Legitimacy And Effectiveness Of Forest Certification In The Congo Basin	Paolo Cerutti	Kenya
	Context Matters: Implementation Of Sustainable Forest Management Under Different Governance And Socio-Economic Conditions	Marine Elbakidze	Sweden
	Assessment Of New Methods For Sustainable Management Practices In Remote Areas	Maxim Trishkin	Finland
	Analysis On Creation Of A Domestic Forest Certification Scheme In Korea's Forestry And Forest Industries	Se Kyung Chong	Republic of Korea
	Evaluating Conservation Impacts Of Forest Management Certification – Testing Causality Through The Use Of Counterfactual Study Design	Colby Loucks	United States

Room:	151 A		
Organizers:	Salim Hiziroglu (Oklahoma State University, USA) & Andrew Wong (Universiti Malaysia Sarawak, Malaysia)		
Moderators:	Salim Hiziroglu & Andrew Wong		
Description:	This session will include topics on recent advances in the innovation, proce bio-based products from wood and non-wood forest resources linked to th		
	An Engineered Wood Composite Pole Of Superior In-Service Performance At A Commanding Price.	Robert Erickson	United States
	Strength Of Red Meranti (Shorea Leprosula Miq) Three-Layer Particleboard From Natural And Plantation Forest	Yuliati Indrayani	Indonesia
	Development Of Tannins - Based Adhesives And Their Applications In The Biocomposites	Zeinab Osman	Sudan
	Liquefaction And Pyrolysis Conversion Of Forest Resources Into Bio- Oil: For A Greener Epoxy And Potential Wood Composite Applications	Brian Via	United States
Poster Prese	ntations:		
	Use Of Wood And Agricultural Residues In Brick Production: An Environmentally Friendly Alternative To Cement Blocks In Ghana	Emmanuel Appiah-Kubi	Ghana
	Cross Laminated Bamboo-Guadua Panels For Construction	Hector F Archila Santos	United Kingdom
	Maritime Pine Bark Extraction For Tannin-Lignin Adhesives	Fatima Charrier-El Bouhtoury	France
	Flexural Properties Of Wood I-Beam Flanged With Pine (Pinus Sp.) And Curupixá (Micropholis Venulosa)	Cláudio Del Menezzi	Brazil
	Properties Of Wood Plastic Composite Made From Nanoclay Added Eastern Red Cedar	Salim Hiziroglu	United States
	Improving Mexican Forest Viability By Technological Characterization Of Commercial Wood Composites By Nondestructive Methods	Mariana Ramírez-Pérez	Mexico
	Caryocar Villosum (Aubl.) Pers. As A Bioresource: Evaluation Of Particleboard Technological Properties	Paula Surdi	Brazil
	Reinforcement Of Plant Fiber-Based Ultra Low Density Material With Sodium Silicate	Yongqun Xie	China

Room:	250 B		
Organizers:	Phil Araman (U.S. Forest Service), Robert Bush & Robert Smith (Virginia Tech, USA)		
Moderators:	Phil Araman		
Description:	This session will present recent innovations to enhance recover, reuse, along with manufacturing residues.	, and recycle construction waste	e, and end-of-use wood products
	Green Building: Dimensional Stability Of Block Produced From Sawdust And Sand	Olajide Razaq Adejoba	Nigeria
	Home Construction Waste And Potential Recycling Options	Phil Araman	United States
	Local Experience With The Use Of Wood Residues From A Sawmill In Cuba	Katia Manzanares Ayala	Cuba

	Paper Honeycomb Panels And Sustainability	Öznur Özden	Turkey
	Wood Pallet Production, Disposal, Recovery, Reuse And Recycling In The U.S.	Phil Araman	United States
/ FOREST	HEALTH IN A CHANGING WORLD		
G-01 (180)	Air Pollution As A Factor Affecting Global Forest Health		
Room:	250 F		
Organizers:	Algirdas Augustaitis (Aleksandras Stulginskis University, Lithuania), And and Training Centre for Forests, Natural Hazards and Landscape, Austr		ervice) & Robert Jandl (Research
Moderators:	Algirdas Augustaitis & Andrzej Bytnerowicz		
Description:	The session will focus on global impacts of air pollution on forest health related to the relationships between climate change and air pollution effects.		
	The State Of Forest Health In The United States And Assessment Of Future Risks From Climate Change, Invasive Species, And Air Pollution.	Borys Tkacz	United States
	The Complex And Surprising Interaction Of Climate Change And Forest Critical Acid Load Exceedance	Steven McNulty	United States
	State Of European Forest Under Environmental Changes	Martin Lorenz	Germany
	Soil Amelioration For Combatting Acid Rain – An Appraisal Of Past Efforts	Robert Jandl	Austria
	Update On Impacts Of Air Pollution And Climate Change On The Carpathian Forests	Andrzej Bytnerowicz	United States
	Drought And Tropospheric Ozone Limit Intra-Annual Stem Growth Of European Beech (Fagus Sylvatica) Across Bavaria/Germany	Rainer Matyssek	Germany
	Effects Of Air Pollution And Climate Change On Forests In China	He Shang	China
	Evidence Of Inhibited And Reinforced Effects Of Climate Change On Tree Responses To The Integrated Effect Of Air Pollutants On Forest Sustainability	Algirdas Augustaitis	Lithuania

## G-10 (135) Multiple Risk Management In Planted Forests

Room:	150 F				
Organizers:	Hervé Jactel (National Institute for Environmental and Agricultural Science and Research, France), Christophe Orazio (European Forest Institute, Finland) & John Moore (Scion, New Zealand)				
Moderators:	Christophe Orazio				
Description:	The session is focused on biotic and abiotic risks to planted forests from the perspectives of hazard assessment, effects of management practices on vulnerability, economic impacts and multiple risks analyses.				
	Storm Fellings And Pine Weevil Caused Seedling Damage Helena Bylund Sweden				
	Modeling The Dynamics Of Root Rot, European Spruce Bark Beetle And Wind Damages In Even-Aged Norway Spruce Dominated Forests	Juha Honkaniemi	Finland		
	Interactions Between Biotic And Abiotic Disturbances On Host And Range Expansion Of Mountain Pine Beetle In Novel Jack Pine Forests	Jennifer Klutsch	Canada		
	Do Prescribed Fires Cause Mountain Pine Beetle Outbreaks?	Crisia Tabacaru	Canada		

Belowground Herbivory In Red Pine Stands Initiates A Cascade That Increases Abundance Of Lyme Disease Vectors	David Coyle	United States
Interacting Threats To Forest Plantations In The Douglas-Fir Region, USA	Dave Shaw	United States
How Management Of Planted Forests Can Mitigate The Risk From Multiple Hazards	Margot Régolini	France
Facing Multiple Risks With Limited Knowledge	Philippe Deuffic	France

#### Special Session for Students and Young Scientists (The "IUFRO Incubator" 1)

Room:	155 A-C		
Organizers:	JP Skovsgaard (Swedish University of Agricultural Sciences), other IUFF Students Association (IFSA)	RO Divisional Representatives &	The International Forestry
Moderators:	Hugo Pierre (IFSA) & JP Skovsgaard		
Description:	This session will provide a venue for recently graduated students to present brief summaries of their BSc, MSc or PhD theses in the fields of forest ecology, biodiversity, and silviculture.		
	The Ecology Of Lowe's Monkey (Cercopithecus Campbelli Lowei) In Kakum Conservation Area, Ghana	Edward Wiafe	Ghana
	Relationship Between Vegetation Structure And Diversity Of Dung Beetle: A Comparison Between A Fragmented Forest, Agroforestry System And Monoculture	Carla Andrea Sandoval Rodríguez	Brazil
	Spatial Aspects Of Biodiversity As A Part Of Harvest Scheduling Decision Process	Jan Kaspar	Czech Republic
	Multiple Species Responses To Forestry Disturbance: A Case Of Epiphytic Lichens	Åsa Ranlund	Sweden
	Vegetation Cover Change In Vancouver Island Mountain Ranges From 1962-2005	Emmeline Natalie Topp	Italy
	High Resistance To The 2010 Drought Of The Arboreal Component Of A Terra Firma Forest In The Northwest Amazon	Daniel Felipe Zuleta Zapata	Colombia
	Climate-Growth Analysis For A Brazilian Dry Forest Site	Claudio Anholetto	Brazil
	Climate Influence On Radial Growth Of Fagus Sylvatica Near To The Lower Edge Of Distribution In Hungary	Balázs Garamszegi	Hungary
	Dendroclimatic Relationships And Possible Implications For Oak (Quercus Sp.) In Central Poland	Agnieszka Bronisz A	Poland
	How Silvicultural Treatments And Site Quality Affect Carbon Storage In A Mixed Species Forest In Maine, USA	Joshua Puhlick	United States
	Test Domestication Halopegia Azurea (K. Schum.) (Marantaceae): Preliminary Study On The Propagation Of Rhizome In Community Forest Of Copal (Cameroon)	Jean Ernest Mballa Bimi	Cameroon
	Ecological Impact Of Harvesting Marantaceae Species From Swampy Ecosystems	Atebeh Uta-Rein Lekah	Cameroon
	Growth Of Cedrela Odorata L. And Incidence Of Hypsipyla Grandella Zeller As Affected By Nutrient Management	Celi Gloria Calixto	Mexico
	Cultural Practices For Producing Enterolobium Cyclocarpum And Swietenia Humilis Seedlings With Appropriate Features To Reforest Low Fertility Soils	Erickson Basave	Mexico
	Forest Dieback In Disturbed Wet Sclerophyll Forests Due To Tri-Trophic Interactions: Can Management Of Lantana Halt Vegetative Declines?	Kathryn Lambert	Australia

Hydrological Effects After Timber Harvesting Of Eucalyptus Plantation	Carolina Bozetti Rodrigues	Brazil
Soil Nutrient Dynamics 22 Years After Lime Application And Gap Creation In A European Beech (Fagus Sylvatica L.) Forest	Na Lin	Germany
Changing The Shape Of Trees In Regrowth Forests Of Australia	Emma Soraya	Australia
Preliminary Investigation Of Flood Tolerance Potentials In Three Indigenous Tree Species In Nigeria	Opeyemi Jegede	Nigeria
Evaluation Of The Influence Of Lianas On Growth And Hydraulic Physiology Of Host Trees In A Forest Fragment In Brazil	Alejandro Danilo Venegas- González	Brazil
Sylvigenetic Analysis Of The Tropical Wet Forest Of La Cangreja National Park, Central Pacific, Costa Rica	Luis Guillermo Acosta- Vargas	Costa Rica
Analysis Of The Qualitative And Quantitative Phenotypic Traits Of Quercus Petraea And Quercus Robur In Forest Căpriana, Republic Of Moldova	Balazs Glavan	Moldova
Experimental Study Of The Effect Of The Exotic Invasive Shrub Rhamnus Frangula On Understory Tree Seedling And Herbaceous Plant Growth	Caroline Hamelin	Canada
Understory Plant Community Response To Forest Management In A Second-Growth Hardwood Forest In The Eastern United States	Marlyse Duguid	United States
Stand Structure And Dynamics Of A Populus Euphratica Riparian Forest Located In The Vicinity Of Ejina Oasis, Inner Mongolia, China	Xiaogang Li	China

# NOTES

# Daily Scientific Program TUESDAY 7 OCTOBER

# NOTES

# TUESDAY 7 OCTOBER – PLENARY SESSION 11:00 – 12:00

Plenary 2: David Newbery: On Maintaining Cycles and Feedbacks in Tropical Forest Ecosystems: Some Thoughts from Basic Research

Room:	Ballroom
Session:	Su See Lee
Description:	Despite a long tradition of continued research into the ecology of natural rain forests many insights have still to be acknowledged and applied properly in forest management. Relevant advice continues to be largely ignored, and this has important consequences for conservation and long-term sustainability. I suggest that broad pan-tropical generalizations are not going to be particularly useful, and a focused site-orientated scientific approach is likely to be far more effective. Recognition of ecosystems as simple systems, ones in which not more than three or four key components are modelled or altered, may lead to much better progress for forestry. Ecosystems are nevertheless dynamic and contingent, so a middle way is required to steer us out of the current one-versus-many species or factors dichotomy. The need to 'take stock' and re-evaluate our research directions is highly desirable. These ideas will be developed with some theory. They are not all so very new, but their context and immediacy calls for some serious reconsideration. Illustrative examples from two long-term studies in rain forest will be discussed, and some recommendations presented.

# TUESDAY 7 OCTOBER - SUB-PLENARY SESSIONS 13:30-15:00

#### SP-05 Biodiversity And Ecosystem Services In Planted Forests

Room:	155 E		
Organizers:	Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute), H Research, UK)	Hervé Jactel (INRA, France) & P	eter Freer-Smith (Forest
Moderator:	Eckehard Brockerhoff		
Description:	This session will review a range of ecosystem services provided by bio each area, and outline innovative measures by which the provision of e at the stand, forest, and landscape scales.		-
	The Impacts Of Pests And Diseases On Future Delivery Of Ecosystem Services	Peter Freer-Smith	United Kingdom
	Biodiversity And Resistance To Pests And Pathogens Of Planted Forests	Hervé Jactel	France
	Assessing Biodiversity Effects On Forest Multi-Functionality Using A Global Network Of Tree Diversity Experiments	Michael Scherer-Lorenzen	Germany
	The Challenge Of Climate Resilient Biodiversity Enrichment In Planted Forests In Post-Tenure Reform China	Shuirong Wu	China
SP-06 Cultural Values, Quality Of Life And Forest Landscapes			
Room:	155 F		

Organizer: Mauro Agnoletti (University of Florence, Italy)

Moderator: Steven Anderson (Forest History Society, USA)

Description:	This session will focus on the historical and current role of cultural values in shaping and conserving forest and woodland landscapes worldwide, the historical interrelationships between cultural and biological diversity, cultural landscapes and their management for tangible and intangible benefits, and the potential for integrating cultural values into sustainable forest management.		
	Cultural Values And Forest Policies. The Case Of Europe	Mauro Agnoletti	Italy
	The UNESCO-CBD Joint Programme On The Links Between Biological And Cultural Diversity	Ana Persic	United States
	Bohemian Forest: From Forest Wilderness To Cultural Landscape And Back	Jiri Woitsch	Czech Republic
	Understanding The Role Of Traditional Forest Knowledge And Culture In Landscape Restoration In China	Jinlong Liu	China

## SP-07 The Importance Of Quantifying Uncertainty In Managing Forests

Room:	251 A-C				
Organizers:	Ruth Yanai (State University of New York-ESF, USA), David Paré (Canadian Forest Service), Peter Clinton (Scion, New Zealand) & Bogdan Strimbu (Louisiana Tech University, USA)				
Moderator:	Peter Clinton (New Zealand Forest Research Institute)				
Descriptions:	This session will describe sources of uncertainty in estimates of forest carbon and nutrient pools and fluxes, including natural spatial and temporal variation, measurement error, model uncertainty, and model selection, and address how these uncertainties can guide monitoring designs and affect management and policy decisions.				
	Uncertainty In Forest Management Planning: Why It Will Not Go Away And What Should We Do About It Canada				
	Forest Carbon Stock Change Uncertainty Estimation In Mexico	Oswaldo Carrillo	Mexico		
	Uncertainty In Forest Carbon And Nutrient Budgets	Ruth Yanai	United States		
	Improving Forestry Decision Making By Accounting For Uncertainty	Annika Kangas	Finland		

## SP-08 The Future Of Our Forests

Room:	155 A-C		
Organizers:	William Nikolakis & John Innes (University of British Columbia, Canada)		
Moderator:	John Innes		
Description:	This session will examine the implications of globalization; the consequences from a growing reliance on plantations; the emergence of new products (such as bio-products and advanced building systems), and the development of forest ecosystem services and their impacts for forests, forest research, and forest dependent communities.		
	Drivers Of Future Forest Use	David Cohen	Canada
	European Forests: Facing The Challenges Of The Coming 50 Years	Gert-Jan Nabuurs	Netherlands
	Carbon, Fossil Fuel, And Biodiversity Mitigation Using Both Wood Products And Forests	Chadwick Oliver	United States
	New Generation Plantations: What Future Role Towards Sustainability?	Luis Neves Silva	Portugal

# TUESDAY 7 OCTOBER - TECHNICAL SESSIONS 08:00-10:30

## // FORESTS FOR PEOPLE

A-01 (63) Forests And Human Wellbeing: Life Satisfaction And Behavioral Approaches	

Room:	150 B		
Organizers:	Shashi Kant (University of Toronto, Canada), Sen Wang (NRC-Canadian Peter Deegen (Technische Universität Dresden, Germany)	Forest Service), Martin Hostett	ler (Cycad Inc., Switzerland) &
Moderator:	Shashi Kant		
Description:	This session will examine new economic approaches to analyze the role of forests in human wellbeing including social, cultural, forest use, education, employment, health, and recreation domains.		
	Evidence For Health Benefits Of Urban Green Motivates A "Green" Public Health Indicator – Results From A Systematic Review And GIS-Analyses	Matilda Annerstedt van den Bosch	Sweden
	Impact Of Health Care Provision On The Contribution Of Medicinal Plants To Health And Livelihoods In Peruvian Amazon	Miki Toda	Japan
	Job Habitat - An Index Of The Socio-Economic Potential Of Forest Stands	Michel Soucy	Canada
	Forest Incomes In The Vicinity Of A Restoration Concession (A Case Study From Harapan Rainforest, Indonesia)	Nayu Nuringdati Widianingsih	Denmark
	How Farmers Adapt To Co-Management Of Land As Sustainable Development Platform - A Study Of Community Forestry Programs In The Philippines	Marcin Jarzebski	Japan
	Farmers Woodlots (FWLs) Management And Sustainable Livelihood Development: A Case Study In Southern Sri Lanka	Mangala De Zoysa	Sri Lanka

## A-03A (192A) The Value And Challenges Of Integrating Food And Medicinal Forest Products Into Forest Management

Room:	250 C		
Organizers:	James Chamberlain (U.S. Forest Service), Carsten Smith-Hall (Universi Research Institute)	ty of Copenhagen, Denmark) &	Tytti Sarjala (Finnish Forest
Moderators:	James Chamberlain & Carsten Smith-Hall		
Description:	This session will explore the state of knowledge on how forests around improve human health and well-being, and the values and challenges services into forest management.		
	Quantitative Approach Of Sterculia Setigera Del. (Sterculiaceae) Ethnobotanical Uses Among Rural Communities In Togo (West Africa)	Wouyo Atakpama	Togo
	Ethnobotany Of Palms (Arecaceae) In Communities Of Bajo Calima, Colombia	Kelly Tatiana Bocanegra- Gonzalez	Colombia
	The Economic Consumptive Value Of Forests: Evidence From The Wet And Dry Forest Zones Of Ghana	Beatrice Darko Obiri	Ghana
	Potentials Of Raphia Hookeri Wine In Livelihood Sustenance Among Rural And Urban Populations In Nigeria	Adekunle Oladele	Nigeria
	Sago Forest Management And Investment Opportunities In Special Autonomy Era In West Papua , Indonesia	Susan Salosa	Indonesia
	Rural And Urban Populations In Nigeria Sago Forest Management And Investment Opportunities In Special	-	

	Biological Properties Of A Non Wood Forest Product (Pistacia Lentiscus Fixed Oil) Growing In Tunisia	Faten Mezni	Tunisia
	Recovery Of Boldo (Peumus Boldus), Specie Of High Value In The Field Of The NWFP Through Intensive Management	Susana Benedetti	Chile
A-05 (62) C	hallenges And Opportunities In Forest Management And	Utilization In Rapidly Ch	anging Asian Economies
Room:	151 D		
Organizers:	Ajith Chandran, Lianzhen Xu, Weiye Wang & Monika Singh (University o	f British Columbia, Canada)	
Moderators:	Simmathiri Appanah (FAO Regional Office for Asia and the Pacific, Thail	land) & Guangyu Wang (Univers	ity of British Columbia)
Description:	This session will examine recent research combined with rural communi- value of learning from a diverse knowledge base and the importance of		
	Communication Challenges In Joint Forest Management In India: Perceptions Of Senior Indian Forest Officers	Ajith Chandran	Canada
	Creating Both Conflicts And Solution Between Customary And Legislative Regulation – Case Of China	Jiayun Dong	China
	ASEAN-Korea Environmental Cooperation Project As A Successful Model Of Regional Cooperation For Human Resource Development And Local Community Improvement	Ho Sang Kang	Republic of Korea
	Participatory Approach To Reduce Deforestation And Forest Degradation: A Case Study From Houykhing Village Cluster, Laung Prabang Province Of Lao PDR	Shyam Paudel	Canada
	Increasing Tree Cover In Degrading Landscapes: 'Integration' And 'Intensification' Of Smallholder Forest Culture In The Alutilla Valley, Matiranga, Bangladesh	Syed Rahman	Bangladesh
	Changing The Forest Landscape In China	Guangyu Wang	Canada
Poster Preser	ntations:		
	Emerging Role Of Jurisprudence In Shaping Forest Management In India	Monika Singh	Canada
	Community Involvement In Forest Management (CIFMs) To Improve People Livelihood In Indonesia	Enny Widyati	Indonesia
	Discourse Strategy And Action Option: The Natural Reserve And Peasants Under The "Fishing And Grazing Ban" Policy	Yiwen Zhang	China

## A-18A (190A) Value Of Traditional Knowledge For Sustainable Forest Management

Room:	250 C
Organizers:	Yeo-Chang Youn (Seoul National University, Republic of Korea), Jinlong Liu (Renmin University of China), William Armand Mala (University of Yaounde I, Cameroon) & Ronald Trosper (University of Arizona, USA)
Moderator:	Jinlong Liu
Description:	This session will focus on the relevance of traditional knowledge, practices and social/governance institutions in the conservation, management, and restoration of forests and sustainable use of forest biodiversity.
	Threats To Indigenous Beliefs And Cultural Practises Used In ForestFolaranmi BabalolaNigeriaProtection: Case Study From Southwest NigeriaFolaranmi BabalolaNigeria

Declining Traditional Ecological Knowledge And Implications On Ecosystem Service Utilization And Management In Disaster Prone Savannah Areas Of Northern Ghana	Yaw Agyeman Boafo	Japan
The Status Of Restoration Practices In Degraded Landscapes Of Southern Africa	Paxie Chirwa	South Africa
Uses And Management Of Fire By Rural Communities In Coniferous Forest In The Monarch Biosphere Reserve, Mexico	Héctor Leonardo Martínez Torres	Mexico
Value Of Traditional Knowledge In Sustainable Forest Management	Floribel Paras	Philippines
The Role Of Traditional Forest Management On Local Livelihoods In Northern Zagros Oak Forests Of Iran	Tobias Plieninger	Denmark
Indigenous People And Their Traditional Knowledge On Tropical Plant Utilization: A Case Study Of Murut Communities Of Sabah, Borneo	Theresa Muthu	Malaysia
Gender And Traditional Forest-Related Knowledge In ChinaA Case From Minority People In Guizhou Province	Juanwen Yuan	China

# A-20A (200A) On Farm Trees: Towards The Promotion And Development Of A Traditional Or Local Silviculture In Tropical And Subtropical Forest Regions

150 A		
William Armand Mala (University of Yaoundé, Cameroon), Jinlong Liu (Renmin University of China), Steven Anderson (Forest History Society, USA) & Yeo-Chang Youn (Seoul National University, Republic of Korea)		
William Armand Mala		
In this session presentations will focus on the status of on-farm trees research and discuss the integration of traditional silviculture and local ecological knowledge on multipurpose trees for the design of small scale forestry practices.		
Indigenous Agroforestry Systems Under Pressure - The Case Of Gedeo Agroforestry And Its Value To Farmers' Livelihoods, Ethiopia	Anique Hillbrand	Germany
Attitudes And Behaviour Towards On-Farm Tree Planting Among Smallholder Farmers In Malawi	Seline Meijer	Ireland
Underutilized And Promising Fruit Tree Species To Enhance Productivity Of Traditional Agroforestry System Through Participatory Domestication In West Java, Indonesia	Budi Hadi Narendra	Indonesia
Traditional Forest Management System From Landscape Perspective In Dong Minority Villages: A Case From S Village In China	Minghui Zhang	China
Profitability Of On-Farm Adoption Of Short Rotation Forestry - A Case Study	Sanjeev Chauhan	India
ntations:		
Impact Of Land Use Practices On Traits And Production Of Shea Butter Tree (Vitellaria Paradoxa C.F. Gaertn.) In Benin	Jean Didier Akpona	Benin
Livelihood Potential Of Moringa Oleifera Tree And Its Role In Food Security And Health Care In Nigeria	Oghenekevwe Joy Arabomen	Nigeria
Boswellia Serrata Gum Oleoresin And Its Contribution To Rural Economy Of Sheopur District Of Central India	Pratibha Bhatnagar	India
Traditional Silviculture Of Butea Monosperma: A Multipurpose Tree Species In Balaghat, India	Pratibha Bhatnagar	India
Seed Producer Candidate Tree Selection Of Bertholletia Excelsa H. B. K. In Degraded Areas And Forest Fragments, Peru Southeast Amazon	Germán Correa	Peru
The Vital Role Of Stallholder Initiatives In Forest Restoration And Reforestation: The Case Of Cameroon	Richard Eba'a Atyi	Cameroon
	<ul> <li>William Armand Mala (University of Yaoundé, Cameroon), Jinlong Liu (F Society, USA) &amp; Yeo-Chang Youn (Seoul National University, Republic of William Armand Mala</li> <li>In this session presentations will focus on the status of on-farm trees in local ecological knowledge on multipurpose trees for the design of smultipurpose tree for the design of the design of smultipurpose tree for the design of smultipurpose tree for the design of the</li></ul>	William Armand Mala (University of Yaoundé, Cameroon), Jinlong Liu (Renmin University of China), Ste Society, USA) & Yeo-Chang Youn (Seoul National University, Republic of Korea)William Armand MalaIn this session presentations will focus on the status of on-farm trees research and discuss the integr local ecological knowledge on multipurpose trees for the design of small scale forestry practices.Indigenous Agroforestry Systems Under Pressure - The Case Of Gedeo Agroforestry And Its Value To Farmers' Livelihoods, EthiopiaAnique HillbrandAttitudes And Behaviour Towards On-Farm Tree Planting Among Smallholder Farmers In MalawiSeline MeijerUnderutilized And Promising Fruit Tree Species To Enhance Productivity Of Traditional Agroforestry System Through Participatory Domestication In West Java, IndonesiaBudi Hadi NarendraTraditional Forest Management System From Landscape Perspective In Dong Minority Villages: A Case From S Village In ChinaMinghui ZhangProfitability Of On-Farm Adoption Of Short Rotation Forestry - A Case StudySanjeev ChauhanAtter Tree (Vitellaria Paradoxa C.F. Gaertn.) In BeninJean Didier AkponaLivelihood Potential Of Moringa Oleifera Tree And Its Role In Food Security And Health Care In NigeriaPratibha BhatnagarBoswellia Serrata Gum Oleoresin And Its Contribution To Rural Exonory Of Sheopur District Of Central IndiaPratibha BhatnagarFreadtional Silviculture Of Butea Monosperma: A Multipurpose Tree Species In Balaghat, IndiaFreagments, Peru Southeast AmazonThe Vital Role Of Stallholder Initiatives In Forest Restoration And K. In Degraded Areas And Forest Fragments, Peru Southeast AmazonBichard Ena'a Atvi

Agroforestry Systems To Rehabilitation Forest Vocation Lands In Michoacán, México	Guadalupe Geraldine García	Mexico
Participatory Investigation Of The Interaction Between Sclerocarya Birrea And Intercrops In Kilosa District, Tanzania	Pilly Kagosi	Tanzania
Recovering Degraded Forest Area Using Agroforestry Practice: Case Study On Area Of Former Mount Batur Eruption, Bali (Indonesia)	Budi Hadi Narendra	Indonesia
Crop Diversity Of Upland Farms In Apayao Province	David Rodolfo	Philippines
Evaluation Of Tree Species For Agroforestry Development In The Sudan Sahel Region Of Nigeria	Loryisa Verinumbe	Nigeria

# A-27A (26A) International To Local Forest Governance: Taking Stock Of Theories, Methodologies And Findings

Room:	250 A		
Organizers:	Lukas Giessen (University of Goettingen, Germany), Bas Arts (Wageningen University, Netherlands), Florian Kraxner (International Institute for Applied Systems Analysis, Austria) & Constance McDermott (University of Oxford, UK)		
Moderator:	Lukas Giessen		
Description:	This session aims at taking stock of innovative theoretical, methodological and empirical achievements in forest governance research, from the local to the global level.		
	Forest Governance: A Practice Based Approach	Bas Arts	Netherlands
	Forest Footprints And The Implications For Equity In Forest Governance	Constance McDermott	United Kingdom
	Examining Equity In Forest Governance: Implications For REDD+ And Other Payments For Ecosystem Services Schemes	Melanie McDermott	United States
	Constructing A Materialist Conception Of Discursive Institutionalism To Examine Institutional Change In Forest Policy: The Case Of The Assisted Migration Of Species In Canada	Nicole Klenk	Canada
	Participatory Forest Governance In Ibero-America: Social And Political Impacts Of The Model Forests Approach	Josique Lorenzo Lemire	Costa Rica
	Russian Forest Policy Development: New Experience Based On Stakeholders' Involvement Approach	Elena Kulikova	Russian Federation
	The Evolving Role Of Secondary-Level Institutions And Their Continued Legitimacy: Community And Producer Associations Under FLEGT And REDD+ In Ghana And Mexico	Reem Hajjar	Canada

#### A-38 (68) How To Make Forest Science Available For All? Publishers', Editors', And Authors' Challenges

Room:	150 C		
Organizers:	Pekka Nygren (Finnish Society of Forest Science) & Eeva Korpilahti (Finnish Forest Research Institute)		
Moderator:	Annika Kangas (University of Helsinki, Finland)		
Description:	The session will provide a forum for the exchange of ideas on how to ensure access to high-quality forest information for all interested users in the era of rapidly changing publishing procedures and platforms.		
	What Future For Research Journals In Forest And Wood Sciences?	Erwin Dreyer	France
	Implications Of Changing Publication Formats For Public Accessibility Of Developing Country Forest And Agroforestry Science	Kurniatun Hairiah	Indonesia
	From Paper To Bits - How To Make And Keep 100 Years Of Forest Science Available Online?	Pekka Nygren	Finland

Increasing Access To Forest Science Research While Improving Research Impact: A Perspective From Tree Physiology	Danielle Way	Canada
Search Engine Optimization - Should We Edit Or Not?	Sofie Wennström	Sweden
Progress In Knowledge Dissemination: Combining Fundamental And Applied Research Journals	Warren Moser	United States
Bringing Forest Science To The End-User: Three Key Challenges	Henry Stelzer	United States
Development Of Boundary Organizations To Span Barriers Between Fire Science And Fire Managers In The United States	Susan Kocher	United States

#### // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

# B-05A (59A) The Benefits Of Introducing The Ecosystem Service Concept In Forest Management And Planning At Different Spatial Scales

Room:	250 E		
Organizers:	Sandra Luque (IRSTEA, France) & Christine Fürst (ZEF Uni Bonn, Germany)		
Moderators:	Sandra Luque & Christine Fürst		
Description:	This session will examine how the distribution of ecosystem services and their monetary and non-monetary values can be influenced by changing scenarios (land use, climate) at different spatial scales, and the development of methodologies for mapping indicators that can be directly related to environmental policy assessments.		
	Operationalization Of The Concepts Of Ecosystem Services And Natural Capital: Forest Ecosystem Functioning And Trade-Offs	Sandra Luque	France
	Forest Management At The Landscape Level – An Integrated Approach	Susanne Frank	Germany
	From Forest Functions To Forest Ecosystem Services (ES) – Benefits From Introducing The ES Concept	Christine Fürst	Germany
	Perceived Benefits From Boreal Forest Landscapes: The Importance Of Historical Legacies For Interpretation Of Ecosystem Services	Per Angelstam	Sweden
	Landscape Sustainability In Sweden, Canada, And Chile In An Ecosystem Services Context	Mark Johnston	Canada
	Ecosystem Services In Urban Forest Areas: Balancing Carbon Storage And Biodiversity	Raffaele Lafortezza	Italy
	Trade-Offs And Synergies Between Ecosystem Services In Nordic Forests: What Does This Mean For Forest Management Decisions?	Anna Filyushkina	Denmark

#### B-07A (210A) Silvicultural Practices To Facilitate Forest Restoration

Room:	151 G		
Organizers:	Byung Bae Park (Chungnam National University, Republic of Korea), Pa Finegan (CATIE, Costa Rica)	alle Madsen (University of Coper	nhagen, Denmark) & Bryan
Moderator:	Palle Madsen		
Description:	This session will examine current research and practical experiences or ranging from regeneration establishment to harvesting systems.	on silvicultural methods used to	facilitate forest restoration,
	The Importance Of Silvicultural Practices To Facilitate Forest Ecological Restoration	Byung Bae Park	Republic of Korea
	Improving Forest Restoration In Dipterocarp Rainforest: A Field Trial With 32 Native Tree Species	Malin Gustafsson	Sweden

Successional Trajectories In Tropical Restored Forests Using Direct Seeding Of Fast-Growing Species	Vera Lex Engel	Brazil
Reintroducing Native Fagaceae Species Into Planation Forests In Central Taiwan: Identifying And Alleviating Establishment Limitations	Biing Guan	China-Taipei
Differences In Communities Of Trees Along A Tropical Forest Restoration Gradient, Uganda	Arthur Owiny	Uganda
Potential Plant Functional Groups For The Restoration Of Moist Forests In The Region Of Bajo Calima, Colombia	Fernando Fernandez	Colombia
Silvicultural Control Of Armillaria Root Disease In Manitoba	Tod Ramsfield	Canada
Forest Restoration Is More Than Tree Planting: The Case Of Fire- Disturbed Southern Bog Forests	Jan Bannister	Chile
Restoration Strategies, Methods, And Operations	John Stanturf	United States

# B-19A (104A) Forests, Roots And Soil Carbon

Room:	155 F		
Organizers:	Cindy Prescott (University of British Columbia, Canada), Douglas Godbo Heljä-Sisko Helmisaari (University of Helsinki) & Shalom Daniel Addo-D		
Moderator:	Cindy Prescott		
Description:	This session will present new insights on root contributions to soil carb biodiversity, and ecosystem services.	oon, particularly linked to forest	management, climate change,
	Tree Species Identity Influences The Accumulation Of Recalcitrant Deep Soil Carbon	Douglas Godbold	Austria
	Revaluating The Role Of Roots And Mycorrhizal Hyphae In Belowground C And Nutrient Cycling In Forests	Dali Guo	China
	Relation Of Fine Roots Vertical Distribution To Soil Carbon In Cunninghamia Lanceolata Forest In Subtropical China	Yingchun Liao	China
	The Quantity And Storage Mechanisms Of Carbon In Deep Soil Horizons Of The Pacific Northwest	Jason James	United States
	The Burial Of Aboveground Woody Debris - An Important Source Of Soil Carbon	Jogeir N. Stokland	Norway
Poster Presei	ntations:		
	Methods For Quantifying Root Dynamics For Forest Carbon Studies- A Review	Shalom Daniel Addo-Danso	Canada
	Response Of Autotrophic And Heterotrophic Soil Respiration To Long-Term Management In Tree-Based And Treeless Grassland Ecosystems.	Julius Adewopo	United States
	Soil Respiration Across Different Scales And Successional Time Scales In Boreal Mixedwood Forests	Oluwabunmi Akande	Canada
	Temporal And Spatial Variability Of Soil Carbon Flux In Longleaf Pine Forests In The Southeastern United States	Althea ArchMiller	United States
	Foliage And Root Contribution To SOC Pools In Utah Forest Soils	Antra Boca	United States
	The Influence Between Morphological Plasticity And Biomass Allocation On Two Provenances Of Abies Holophylla Seedlings Under Different Nitrogen Fertilization Regime	Yuan Chai	China

Spatial Distribution Of Root Biomass Of Pinus Massoniana Plantation In Three Gorges Reservoir Area, China	Ruimei Cheng	China
Estimating Fine Root Biomass Of Pinus Densiflora Using Soil Core Sampling And Minirhizotron Techniques	SeungHyun Han	Republic of Korea
454 Pyrosequencing Analyses Of Mountain Forest Soils Reveal A High Fungal Diversity And A Rapid Response To Successional Stages	Nicola La Porta	Italy

#### // FORESTS AND CLIMATE CHANGE

#### C-04 (242) Addressing The Drivers Of Deforestation: Exploring Synergies Between REDD+ And Forest Policy

Room:	250 F		
Organizers:	Michael Obersteiner (International Institute for Applied Systems Analysi Research-INPE, Brazil); Martin Tadoum (The Central African Forestry Co Conservation Monitoring Centre, UK)		
Moderator:	Michael Obersteiner		
Description:	This session aims at presenting and discussing the latest research on sector efforts addressing these and the identification of effective future		
	Assessing Potential Biodiversity Impacts Of Policies That Address Drivers Of Deforestation To Achieve REDD+ Objectives	Valerie Kapos	United Kingdom
	Potentials Of REDD+ In Conserving And Protecting The Remaining Philippine Forests	Leonida Bugayong	Philippines
	Comparing The Effectiveness Of National Level Forest Policies Across Central America	Forrest Fleischman	United States
	Forest Fragmentation In Mexico: An Evaluation Of The Theory Of Collective Action	Gustavo Perez-Verdin	Mexico
	Carbon Offsetting By Small Holder Farmers In The Congo Basin: Economic And Policy Constraints	Stephan A. Pietsch	Austria
	Evolution Of Drivers Of Deforestation And Forest Degradation In Central African Forests: Exploring Possible Policy Options To Address Forest Loss	Yitagesu Tekle Tegegne	Finland
	Institutional And Policy Drivers Of Deforestation In African REDD+ Countries	Johanna Wehkamp	Germany
	Building Consensus On REDD Activities At A Jurisdictional Scale: Case Study In Huila, Colombia	Guillaume Zeender	Colombia

#### C-08 (110) Managing Forest For Fire In A Changing Climate

Organizers:Cristina Aponte, Helen Vickers, Thomas Fairman (University of Melbourne, Australia) & William Elliot (U.S. Forest Service)Moderators:Cristina Aponte & Helen VickersDescription:This session will focus on the effectiveness of fuel management practices to minimize wildfire risk and the impacts of these practices on forest ecosystems services such as water supply, carbon sequestrative, and biodiversity.Long-Term Effects of Repeated, Prescribed Fires On Aboveground Carbon Stocks In A Temperate Eucalypt ForestCristina AponteMulching Treatments Alter Understory Vegetation In Forested Ecosystems of The Western U.S.Paula Fornwalt	Room:	251 A-C		
Description:       This session will focus on the effectiveness of fuel management practices to minimize wildfire risk and the impacts of these practices on forest ecosystems services such as water supply, carbon sequestration, and biodiversity.         Long-Term Effects Of Repeated, Prescribed Fires On Aboveground Carbon Stocks In A Temperate Eucalypt Forest       Cristina Aponte       Australia         Mulching Treatments Alter Understory Vegetation In Forested       Paula Fornwalt       United States	Organizers:	Cristina Aponte, Helen Vickers, Thomas Fairman (University of Melbourne, Australia) & William Elliot (U.S. Forest Service)		
Description:       on forest ecosystems services such as water supply, carbon sequestration, and biodiversity.         Long-Term Effects Of Repeated, Prescribed Fires On Aboveground Carbon Stocks In A Temperate Eucalypt Forest       Cristina Aponte       Australia         Mulching Treatments Alter Understory Vegetation In Forested       Paula Forpwalt       United States	Moderators:	Cristina Aponte & Helen Vickers		
Carbon Stocks In A Temperate Eucalypt Forest Cristina Aponte Australia Mulching Treatments Alter Understory Vegetation In Forested Paula Forpwalt Lipited States	Description:			
Paula Fornwait Linuted States			Cristina Aponte	Australia
			Paula Fornwalt	United States

	The Season, Severity, And Frequency Of Prescribed Fire Shaping The Community Dynamics Of Heathland Shrub Species	Matthew Chick	Australia
	Innovative Techniques To Suppress Wildfires In The Black Sea Region	Sergiy Zibtsev	Ukraine
	Greek Fir Forests, Fire And Climate Change	Yannis Raftoyannis	Greece
	How Do Recurrent Disturbances Change Temperate Forests? Perspectives From The Decade Of Megafires In Victoria, Australia And Implications For Forest Management	Thomas Fairman	Australia
Poster Presei	ntations:		
	Planned Burning Vs. Wildfire Impact On Soil Methane Flux – Implications For Forest Fire Management	Stefan Arndt	Australia
	Influencing Factors On Early Vegetation Restoration In Burned Area Of Pinus Pumila – Larch Forest	Fengjun Zhao	China
	Mastication Effects On Fuels, Plants, And Soils In Four Western U.S. Ecosystems: Trends With Time-Since-Treatment	Michael Battaglia	United States
	Targeting Forest Management Through Fire And Erosion Modeling	William Elliot	United States
	Caloric Values Of Species Utilized In The Composition Of Fuel Breaks Of Brazil	Antonio Batista	Brazil
	Asymmetric Communication Between Media And Stakeholders And Its Influences To The Ineffectiveness Of Forest Fire Risk Management In Indonesia	Meti Ekayani	Indonesia
	Potential Impacts Of Climate Change On Fire Socioeconomic Vulnerability In The Mediterranean Area	Armando González-Cabán	United States
	Quantifying Management Priorities In Urban Interfaces Threatened By Wildfires	Mario Elia	Italy
	Spatial Analysis Of Forest Fire And Burnt Area In The Northwest Of Madagascar: Role In Forest Management And Biodiversity Conservation	Harifidy Rakoto Ratsimba	Madagascar
	Investigation Of Emissions From Heated Essential-Oil-Rich Fuels	Fengjun Zhao	China
	Spatial Data Mining Application In Forest Fire Assessment In Tropical Peat Areas	Ahmad Nuruddin	Indonesia

# C-17 (250) New Developments In The Use Of Remote Sensing And National Forest Inventories For Estimation And Mapping

Room:	150 D		
Organizers:	Gregory Reams (U.S. Forest Service) & Ken MacDicken (UN-FAO, Italy)		
Moderator:	Temesgen Hailemarian (Oregon State University)		
Description:	This session presents the integration of remotely sensed data and stat with an emphasis on large landscape estimation and mapping at the r carbon, and soils.		0
	Origin And Methodological Aspects Of National Forest Inventory In Brazil (NFI-BR)	Hassan Camil David	Brazil
	Development Of Carbon Monitoring Methods In Ecuador	Danilo Granja	Ecuador
	Preliminary Results Of The Global Forest Biomass Survey	Sean Healey	United States

	Mapping Forests As Renewable Chemicals For Biorefineries	Torbjorn A Lestander	Sweden
	A New Soil Erosion Survey Method In The National Forest Inventory Of Japan	Satoru Miura	Japan
	Brazilian National Forest Inventory: Remote Sensing And Landscape Analysis Approaches For Nationwide Forest Monitoring And Assessment	Yeda Oliveira	Brazil
	Going Beyond National-Level Statistics: A New Data Infrastructure For Ecoregion-Level Forest Resource Assessment	Brad Smith	United States
Poster Prese	ntations:		
	Mapping The Extent Of Conifers Dominating High Conservation Value Forests In Finland Using Landsat Data	Evgeny Lopatin	Finland
	Russian Federation Forest Resources Assessment Based On Free Medium Resolution Remote Sensing Data	Evgeny Lopatin	Finland
	Measurement And Monitoring Of Carbon In Peru: Methods And Plans For MRV	Renzo Carlos Vergara Arellano	Peru

## C-19 (226) Implementation Of Silvicultural Treatments And Their Effects Into Forest Growth Models

Room:	150 E		
Organizers:	Margarida Tomé (Technical University of Lisbon, Portugal) & JP Skovsg	aard (Swedish University of Agr	icultural Sciences)
Moderators:	Margarida Tomé & JP Skovsgaard		
Description:	This session will explore how silvicultural treatment effects, such as the incorporated into current forest growth models and how these may be		•
	The Forest Projection And Planning System (FPS)	James Arney	United States
	Implementation Of Thinnings In Individual Tree And Diameter Distribution Growth Models; An Application To Maritime Pine Stands In Portugal	Teresa Fonseca	Portugal
	Using A Light-Capture Based Tree Growth Model To Optimize Uneven-Aged Silviculture Of Picea Mariana In Canada	Arthur Groot	Canada
	Modeling Uneven-Aged Management Of Heterogeneous Forests Within Individual Based And Spatially Explicit Simulation Models.	Valentine Lafond	France
	Improve The 3-PG Model In Eucalyptus Fertility Modifier Using Twin-Plots	Cristiane Lemos	Brazil
	Increases In Soil Carbon And C/N Ratio In Pine Forests 34 Years After Phosphorus Fertilizer Addition: Measurement And Modeling	Phil Polglase	Australia
	Growth And Survival Of Seedlings Near Clusters Of Retained Overstory Trees On Forest Plantations In Pacific Temperate Rainforests	Nick Smith	Canada
	A Selective Cutting Decision Model For Optimizing Spatial Structure Of Spruce-Fir Forest	Hua Yang	China

## C-26 (27) Forest Owners And Climate Change Adaptation

Room:	150 F
Organizers:	Robert Jandl (Research and Training Centre for Forests, Natural Hazards and Landscape, Austria), Ulrike Pröbstl (University of Natural Resources and Life Sciences, Austria), Anatoly Shvidenko (International Institute of Applied System Analysis, Austria) & Sandra Luque (National Institute for Environmental and Agricultural Science and Research, France)

Moderator:	Robert Jandl		
Description:	This session will discuss the consequences of a changing structure of forest land owners under the conditions of climate change for development and implementation of appropriate forest management adaptation measures and risk management.		
	Understanding And Directing Small-Scale Private Forest Owner Behaviour Towards Climate Change Adaptation	Ulrike Pröbstl-Haider	Austria
	Forest Owner Perceptions Of Climate Change Effects On Forest Management	Leif Gustavsson	Sweden
	Acting As A Forest Owner In A Climate Of Uncertainty	Philippe Deuffic	France
	Characterizing Climate Change And Forest Carbon Sequestration Attitudes Of NIPF Landowners In The Southern United States	Puskar Khanal	United States
	Family Forest Landowner Interest In Carbon Management And Markets: Insights From The U.S. And Norway	Stephanie Snyder	United States
	Explaining Differences In Perception Of Climate Risks And Adaptation Measures Among Forest Owners And Forestry Advisors	Gregor Vulturius	Sweden
	Scenarios For Forest Management In A Rural Municipality In Sweden, With Respect To Different Private Forest Owners Categories	Jeannette Eggers	Sweden
	Paths For New Services - Important Factors In Owning Forests For Finnish NIPF Owners In The Context Of Ecosystem Services	Osmo Mattila	Finland
	What Is The Baseline Of Forest Carbon Stocks In South Korea: Overestimation Or Underestimation?	Yohan Lee	Republic of Korea

# // FORESTS AND WATER INTERACTIONS

D-05A (256A) Managing Forests And Forest Uses To Protect And Provide Clean Water					
Room:	155 E				
Organizers:	Richard Harper (Murdoch University, Australia) & Jean-Michel Carnus (I	NRA, France)			
Moderators:	Richard Harper & Jean-Michel Carnus				
Description:	This session will examine the linkages between forests and forest watershed management and water quality for rural and urban water users and consumers.				
	Intensified Forestry In Sweden: How Will It Affect The Sustainability Of Forest Soils And Waters?	Hjalmar Laudon	Sweden		
	Long-Term Response Of Streamflow And Groundwater To Timber Harvesting And Declining Rainfall In A Small Forest Catchment In South-Western Australia	Geoff Stoneman	Australia		
	Conversion Of Tropical Rainforests To Oil Palm And Rubber Increased Flooding In Peninsular Malaysia	Ismariah Ahmad	Malaysia		
	After The Smoke Clears: Evaluating Post-Fire Erosion Risk And Rehabilitation Options	Peter Robichaud	United States		
	Optimising Water Co-Benefits From Forest Carbon Mitigation	Richard Harper	Australia		
	Quantifying Tradeoffs Of Water And Carbon Among PES-Sponsored Reforestation Strategies In Seasonally-Dry Costa Rica.	Oscar Abelleira Martinez	Costa Rica		
Poster Presei	Poster Presentations:				
	Effects Of Historic Forest Disturbance On Water Quality And Flow In The Interior Western U.S.	Marek Matyjasik	United States		

nterception Loss, Throughfall And Stemflow In Tamaulipan Thornscrub At Species Level, Northeastern Mexico	Israel Cantu Silva	Mexico
Priority Areas For Water Recharge In Temperate Forest Ecosystems n Mexico	Patricia Hernández-de la Rosa	Mexico
he Effect Of Plant Cover On Alimentation Areas On Spring Water Chemistry In The South Of Poland	Stanisław Małek	Poland

## // FOREST BIOMASS AND BIOENERGY

#### E-01A (50A) Sustainable Biomass For Energy And Industrial Raw Materials: Biomass Potentials

Room:	150 G		
Organizers:	Viktor Bruckman (Commission for Interdisciplinary Ecological Studies, Austrian Academy of Sciences), Sanjeev Kumar Chauhan (Punjab Agricultural University, India) & Robert Jandl (Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Austria)		
Moderators:	Viktor Bruckman & Sanjeev Kumar Chauhan		
Description:	This session aims at disseminating state-of the art knowledge of sustainable woody biomass production from common woodland management systems, such as conventional forestry, short rotation forestry and agroforestry with a focus on sustainability in context of changing climate, carbon sequestration and trading, and social benefits.		
	Survey Of Guidelines For Intensive Forest Biomass Removals From Around The World: Lessons And Recommendations	Brian Titus	Canada
	Energy Crops And Trees As A Sustainable Feedstock From Marginal Lands	Michael Jacobson	United States
	Eucalyptus Plantations In Florida USA: Economic Analysis Of Current And Potential Uses	Jeff Wright	United States
	Biomass Yields From First Rotation Periods In Commercial Short Rotation Forestry (SRF) Plantations In Bavaria Prove To Be Higher Than Those From Previous Field Trials	Sebastian Hauk	Germany
	Biochar Application In Forestry: A Multinational Approach To Assess The Potentials For Negative Carbon Emissions	Viktor Bruckman	Austria
	Sustainable Urban Forest Maintenance: Re-Thinking Satoyama As A Biomass Resource For The Small-Scale Wood Energy Utilization	Toru Terada	Japan
	Forest Energy In West Africa: Situation And Future Scenarios For Burkina Faso And Sierra Leone	Javier Arevalo	Finland
	Demonstrating Potential For Commercial Production Of Some Biomass Fuels For Bioenergy Application In Kenya	James Onchieku	Kenya

#### E-08A (106A) Biobased Products And Bioenergy

Room:	250 B		
Organizers:	Jianchun Jiang, Fuxiang Chu (Chinese Academy of Forestry), Dominique Lachenal (Grenoble INP-Pagora, France) & Jingxin Wang (West Virginia University, USA)		
Moderator:	Dominique Lachenal		
Description:	This session will feature current scientific developments on biomass materials and derived products, technologies for converting biomass into useful products and energy, including techniques under development to produce pure cellulose for dissolving pulp (textile) and for higher value cellulosic polymers and materials.		
	Woody Biomass Utilization For Bioenergy: Opportunities AndJingxin WangUnited StatesChallenges In Biomass Harvest And Logistics In The NortheasternJingxin WangUnited StatesUnited States		

Nondestructive Estimation Of The Chemical And Thermal Properties Of Forest Biomass Using Vibrational Spectroscopy And Thermogravimetric Analysis	Gifty Acquah	United States
Overcoming Barriers To Cogeneration From Biomass In The U.S. Wood Products Industry	Omar Espinoza	United States
The Research And Development Status Of Chinese Biomass Gasification And Pyrolysis	Jianchun Jiang	China
Upgrading Wood Pyrolysis Oil By Hydrogenation Using Nanocatalysts To Green Transportation Fuels	Yinglei Han	China
Catalytic Upgrading Of Biomass Pyrolysis Vapors	Mark Nimlos	United States
Effect Of Woody Biomass Feedstock On Gasification Synthesis Gas	Les Groom	United States

#### // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

F-05 (90) Gender And Forestry Value Chains				
Room:	151 B			
Organizers:	Herry Purnomo, Bimbika Sijapati Basnett & Pablo Pacheco (CIFOR, Ind	onesia) & Sola Phosiso, (CIFOR,	Kenya)	
Moderators:	Herry Purnomo & Bimbika Sijapati Basnett			
Description:	Drawing on research carried out on a wide range of forest value chains from charcoal, teak to bush meat and wild vegetables, this panel will shed a light on the role of women in forest value chains in the face of forest loss and a range of uncertainties generated by ever-increasing demands for food, timber, and ecosystem services in a globalized world.			
	Opportunities For Enhancing Poor Women's Socio-Economic Empowerment In The Value Chains Of Three African Non-Timber Forest Products (NTFPs)	Fiona Paumgarten	South Africa	
	Gender, Value Added Chains And Certification In Furniture Industry	Herry Purnomo	Indonesia	
	Women And Charcoal Value Chains In Eastern And Southern Africa	Phosiso Sola	Kenya	
	The Role Of Women In The Management Of Forest Resources On Afadjato Mountain Ecosystem In Ghana	Edward D. Wiafe	Ghana	

# F-18 (159) Emerging Green And Sustainable Alternatives To Classical Wood Preservative To Protect Forest Products

Room:	151 A		
Organizers:	Donatien Pascal Kamdem (Michigan State University, USA), Jöran Jermer (SP Technical Research Institute of Sweden), Andrew Wong (Universiti Malaysia Sarawak) & Nasko Terziev (Swedish University of Agricultural Sciences)		
Moderators:	Andrew Wong & Fatima Charrier-El Bouhtoury (Université de Pau et des Pays de l'Adour, France)		
Description:	This session will explore recent research and technology used worldwide to improve stability and durability of wood products such as biological, chemical and physical modification and test methodologies to evaluate and predict their in-service performance in different applications.		
	Superheated Steam Heat Treatment For Pitch Pine (P. Rigida) Lumber	Yonggun Park	Republic of Korea
	Temperate Woods In Tropical Climate - How Sustainable	Sundararaj Ramachandran	India

	Stilbenes From The Bark Of Norway Spruce (Picea Abies [L.] Karst. ) As Protective Agents	Pekka Saranpää	Finland
	Wood Modification Through Acetylation Process On Three Lesser- Used Timber Species Of Myanmar	Cho Cho Win	Myanmar (Burma)
Poster Prese	ntations:		
	Antifungal Potential And Chemical Composition Of Chamaecyparis Formosensis And Chamaecyparis Obtusa Var. Formosana Essential Oils In Liquid And Vapor Phase Against Plant Pathogenic Fungi	Ying-Ju Chen	China-Taipei
	Cinnamomum Osmophloeum Leaf Oils Act As Antifungal Agents For Wood Rot Fungus Phellinus Noxius	Sen-Sung Cheng	China-Taipei
	Crude Tall Oil Impregnation As A Wood Preservation Method	Henrik Heräjärvi	Finland
	Chemical Treatments To Sanitize Phytophthora Ramorum Colonized Timber Material And Mitigate The Risk Of Accidental Sudden Oak Death Dissemination.	Joseph Hulbert	United States
	Fungal Decay Of Pinus Kesiya Fascia Boards On External Joinery In Zambia	Elisha Ncube	Zambia
	The Role Of Fenton Derived Hydroxyl Radicals In Oxidative And Enzymatic Degradation Of Furfurylated Wood	Klaus Richter	Germany
	Utilization Of Naturally Durable Tropical Woods In Society For A Greener Future	Andrew Wong	Malaysia

# // FOREST HEALTH IN A CHANGING WORLD

# G-07 (38) Is Climatic Change Modifying The Characteristics Of Insect Damage In Forests?

Room:	151 C		
Organizers:	Francois Lieutier (University of Orleans, France), Timothy Paine (Universible Melbourne, Australia)	sity of California, Riverside, USA	N & Rodney Keenan (University of
Moderator:	Timothy Paine		
Description:	This session will focus on the effects of climate change and changing multiple forest types.	forest management systems or	n insect damage to trees across
	Identifying Features Of Tree-Insect Interactions Prone To Major Alteration By Climate Change	Kenneth Raffa	United States
	Climate Change And Insect Dynamics In Temperate Forests Of North America	Daniel Herms	United States
	Increasing Damage Due To The Pine Processionary Moth In Europe: Role Of Climate And Landscape Changes	Jérôme Rousselet	France
	Insect Outbreaks And Oak Decline Interact To Shape Drier Forests Of The Future	Fred M. Stephen	United States
	Biological Characteristics Of The Mediterranean Forest Insects	Francois Lieutier	France
	Living On The Edge: Outbreaks Of A Bark Beetle At Its Range Margins-Life-History, Associated Fungi And Host Defenses	Caterina Villari	United States
	General Characteristics Of The Boreal Forest Insects	Pekka Niemela	Finland
	Dendroctonus Ponderosae, 'The Tree Killer', Confronts Climate Change	Barbara Bentz	United States

G-16 (184) Forest Health In Changing Landscapes: The Roles Of Landscape Patterns			
Room:	151 E		
Organizers:	Kurt Riitters (U.S. Forest Service) & Peter Vogt (European Commission Joint Research Centre, Institute for Environment and Sustainability)		
Moderators:	Kurt Riitters & Peter Vogt		
Description:	This session is focused on the mitigation of forest health impacts induce	d by climate change through ma	nipulation of landscape patterns.
	Slash And Burn Agriculture, Fragmentation And Landscape Dynamics In The Lowland Rainforest Of Madagascar: Case Of Manompana, Northeast Of Madagascar	Harifidy Rakoto Ratsimba	Madagascar
	Morphological Analysis Of State And Trends Of Landscape Pattern	Peter Vogt	Italy
	Natural Forest Fragmentation Evaluation At Campos Gerais Region, South Brazil	Rosemeri Moro	Brazil
	Land-Cover Changes And Future Projection In Gambari Forest Reserve, Southwestern Nigeria Using Landsat Imageries	Olufunke Olayode	Nigeria
	Mapping Spatial And Temporal Pattern Of Hemlock Woolly Adelgid Induced Hemlock Mortality In The Southern Appalachians	Tuula Kantola	Finland
	Abiotic And Biotic Factors Influencing Pine Health In Georgia And Alabama	David Coyle	United States
	National Integration Of In-Place And Remotely-Sensed Forest And Landscape Pattern Inventories To Evaluate Changes In Forest Health	Kurt Riitters	United States
Special Ses	ssion for Students and Young Scientists (The "IUFRO Inc	ubator" 2)	
Room:	155 A-C		
Organizers:	JP Skovsgaard (Swedish University of Agricultural Sciences), other IUFF Students Association (IFSA)	RO Divisional representatives &	the International Forestry
Moderators:	Lilli Kaarakka (IFSA) Yousry El-Kassaby (University of British Columbia),	Jamie Barbour & Ronald E. Mc	Roberts (U.S. Forest Service)
Description:	This session will provide a venue for recently graduated students to pre- fields of forest inventory and modelling, forest health, tree physiology a and bioenergy.		
	Scaling Local Tree Mortality Models To A Regional Scale Using Combined Estimators In A Meta-Regression Approach	Suborna Ahmed	Canada
	Site Index Models For Young Trees In Multilayer Silver Fir Stands In Southern Poland	Karol Bronisz	Poland
	Analysis Of Aboveground Carbon Sequestration Potential Of The Redd+ Demonstration Site In Southern, Leyte, Philippines	Rizza Karen Veridiano	Philippines
	Geospatial Methods Of Forest Carbon Monitoring In Relation To Land Use Change For REDD+ In Nepal	Him Ial Shrestha	Nepal
	Inter-Annual Difference In The Water Use Of Mature Sugar Maple In Response To Experimental Warming And Irrigation	Alex Collins	United States
	Investigating Drivers Of Spatial Variation In Sugar Maple Leaf Morphology With A Canopy Shading Experiment	Adam Coble	United States
	Severity Of Sugar Maple Crown Dieback In Relation To Winter Climate		

Variables, Soil Nutrients, And The Presence Of Exotic Earthworms Variation In Photosynthetic Temperature Responses Across Vertical

Tropical Forest Canopy Gradients

XXIV International Union of Forest Research Organizations World Congress // 37

United States

Alida Mau

Pines Under Pressure: How Sierra Nevada Forests Are Impacted By Ozone And Drought Stress	Stella Cousins	United States
Effects Of Tree Species Biodiversity On Fungal Pathogen Regulation: Understanding The Spread Of The Ash Dieback Pathogen, Hymenoscyphus Pseudoalbidus	Diem Nguyen	Sweden
Effects Of White Pine Needle Damage And Climate Change On Forest Health And Carbon-Water Dynamics Across The Northeastern U.S.	Cameron McIntire	United States
Transmission Of Fungal Pathogens In An Ebb-And-Flow Irrigation System At A Native Plant Nursery	Rebecca Sheridan	United States
Role Of Fungi Of The Gen. Geosmithia In Relation To The Pathosystem Elm - Elm Disease (DED)	Alessia Pepori	Italy
Influence Of Host Plant On The Physiological Attributes Of Field Grown Sandal Tree (Santalum Album L.)	Delphy Rocha	India
Genetical Differences Among Central European Cockchafer Species	Balint Meszaros	Hungary
In Vitro Propagation Of Allanblackia Floribunda (Oliv) Through Nodal Culture	Oluseun Joshua Ogunade	Nigeria
Landscape-Scale Assessment Of Mexican Spotted Owl Nesting Habitat Using MODIS Imagery	Serra Hoagland	United States
FVS-OpCost: A New Forest Operations Cost Simulator, Developed In R And Linked With FVS	Conor Bell	United States
Optimization Of "Waterproof" Forwarding With Lidar Datasets In Sweden	Gustav Friberg	Sweden
Life Cycle Carbon And Economic Assessment Of Biochar-Based Bioenergy Production In Ontario, Canada	Krish Homagain	Canada
A Long-Term Perspective On Biomass Harvesting: Northern Mixedwood Forest Productivity 50 Years After Whole-Tree And Stem-Only Harvesting	Bethany Muñoz	United States

# TUESDAY 7 OCTOBER – TECHNICAL SESSIONS 15:30-18:00

# // FORESTS FOR PEOPLE

#### A-03B (192B) The Value And Challenges Of Integrating Food And Medicinal Forest Products Into Forest Management

Room:	250 C		
Organizers:	James Chamberlain (U.S. Forest Service), Carsten Smith-Hall (Universi Research Institute)	ty of Copenhagen, Denmark) &	Tytti Sarjala (Finnish Forest
Moderators:	James Chamberlain & Carsten Smith-Hall		
Description:	This session will explore the state of knowledge on how forests around improve human health and well-being, and the values and challenges services into forest management.		
	Impact Of Bark And Foliage Harvesting On Fruit Production Of The Multipurpose Tree Species, Afzelia Africana In Burkina Faso	Blandine Marie Ivette Nacoulma	Burkina Faso
	Management Criteria For Non-Wood Forest Products Of Vegetable Origin Of Importance In The Sociocultural Context	Adolfo Núñez Barrizonte	Cuba

Non-Wood Forest Products In A Context Of Sustainable Management: Case Studies In Ukraine, Russia And Swe	Strvamets Nataliva	Ukraine
Natural Resources For Human Health: The Reliance On Plants For Health Care In Rural Nepal	Medicinal Rikke Thorsen	Denmark
Traditional Knowledge Of Mushroom Production In The ( World: The Case Of Noto-Temari And Dried Shiitake Mus Oku-Noto Area, Japan	0 0	Japan
Co-Managing Appalachian Hardwood Forests For Timbe Timber Products	r And Non- James Chamberlain	United States

#### A-09 (168) Communities, Forests, Forest Industries And The Social License To Operate

Room:	250 A		
Organizers:	Peter Edwards (Swedish University of Agricultural Sciences), Justine La	cey & Kieren Moffat (CSIRO, Au	ustralia)
Moderators:	Peter Edwards		
Description:	This session will include presentations on a variety of aspects related to how and acceptance that communities and other stakeholders grant to a com		
	Corporate Responsibility Development Paths In The Forest Sector	Anne Toppinen	Finland
	Collaboration Opportunities In Corporate Social Responsibility (CSR) Reporting For Finnish Non-Industrial Private Forestry (NIPF) And Non- Integrated Sawmilling Industry	Katja Lähtinen	Finland
	Obtaining And Maintaining Social License To Operate – British Columbia's Quality Assurance Model	Timothy Ryan	Canada
	Gaining A Social License To Practice The Assisted Migration Of Species In Forestry	Nicole Klenk	Canada
	New Generation Plantations: All Forestry Has To Become Social Forestry	Luis Neves Silva	Portugal
	The Socioeconomic Impacts Of Smallholder Industrial Tree Plantations In The Philippines	Rose Jane Peras	Philippines
	First Nations And Forestry Companies In Canada: Possibilities And Pitfalls Of An Informal "Social License" In A Contested Environment	Stephen Wyatt	Canada
	Social License As Social Contract: Procedural Justice, Democracy And Activism In The Australian Forest Industry	Justine Lacey	Australia

## A-13 (212) Innovative Planning And Managing Approaches For Sustainable Tourism In Forests And Natural Areas

Room:	151 D		
Organizers:	Taylor Stein (University of Florida, USA), Peter Fredman (Mid Sweden University, Sweden), Nobuhiko Tanaka, Tokai University, Japan) & Liisa Tyrväinen (Finnish Forest Research Institute)		naka, Tokai University, Japan) &
Moderator:	Taylor Stein		
Description:	This session's objectives are to address the multiple dimensions assoc to society and local people.	iated with tourism in forests an	d natural areas including benefits
	Assessing Sustainability Of Nature Tourism Along Florida National Scenic Trail	Bin Wan	United States
	Towards Sustainable Growth In Nature-Based Tourism Destinations: Clients' Views Of Land Use Options In Finnish Lapland	Liisa Tyrväinen	Finland
	A Method To Detect Spatiotemporal Changes Of Tourism/Recreational Potential In Nature-Based Areas - With Several Case Studies In Japan	Nobuhiko Tanaka	Japan

Do Forests Matter To The Nature-Based Tourism Industry?	Peter Fredman	Sweden
Tourism Best Management Practices Applications In Southeast Alaska	Linda Kruger	United States
Definition Of Priority Areas For Use Public, In A Conservation Area In Brazil, Using Techniques Geoprocessing	Fabricia Benda de Oliveira	Brazil

## A-18B (190B) Value Of Traditional Knowledge For Sustainable Forest Management

Room:	250 D		
Organizers:	Yeo-Chang Youn (Seoul National University, Republic of Korea), Jinlong of Yaounde I, Cameroon) & Ronald Trosper (University of Arizona, USA)	Liu (Renmin University of China	), William Armand Mala (University
Moderator:	Wil de Jong (Kyoto University, Japan)		
Description:	This session will focus on the relevance of traditional knowledge, pract management and restoration of forests and sustainable use of forest b	0	itutions in the conservation,
	Can The Traditional Knowledge Be Prevented From Being TRIPped?	Medha Kant	India
	What Makes Traditional Knowledge Communicable For Sustainable Forest Management?	In-Ae Kim	Republic of Korea
	Can Local Wisdom Be Used In Forest Conservation Around National Park? The Case In Seram Island, Central Moluccas, Indonesia	Nining Liswanti	Indonesia
	Linking Local Traditional Biodiversity Conservation Knowledge To Combat Rocky Desertification In Karst Area In Southwest China	Yaofeng Luo	China
	Governance Of Knowledge Systems In Developing Adaptive Forest-Agriculture Innovations	William Armand Mala	Cameroon
	Valuing Traditional Knowledge For Conserving Biodiversity In Indonesia	Herwasono Soedjito	Indonesia
	Would Traditional Forest Knowledge Be Useful For Urban Ecological Restoration?	Sojin Youn	Republic of Korea

# A-20B (200B) On Farm Trees: Towards The Promotion And Development Of A Traditional Or Local Silviculture In Tropical And Subtropical Forest Regions

<i>Room:</i> 150 A			
	William Armand Mala (University of Yaoundé, Cameroon), Jinlong Liu (Renmin University of China). Steven Anderson (Forest History Society, USA) & Yeo-Chang Youn (Seoul National University, Republic of Korea)		). Steven Anderson (Forest History
Moderator: William Arman	nd Mala		
	n presentations will focus on the status of on-farm ogical knowledge on multipurpose trees for the de		
-	nd Socioeconomic Factors Supporting Farmers' Ch Trees In The Agroforestry Systems In Benin (West Afri		Benin
	s Practical Silvicultural Management For Rural Soc ombo Woodlands, Southern Africa	iety Coert Geldenhuys	South Africa
Sustaining Gha	ana's Forest Cover: Evidence Cocoa Agroforestry Syst	em Isaac Nunoo	Ghana
	And Socio-Economic Importance Of Some Agrofore cies: Farmers' Participation, Tree Growth Characte ssessment	* Innathan Entrew/IIIOk/WIT	Nigeria
On-Farm Tree Of Southern C	s Management Drivers Of In Smallholder Landscap Cameroon.	valentina Robiglio	Peru

Impact Of Traditional Agroforestry Systems Practices On Conservation Effectiveness Of Useful Trees: Case Study Of Borassus Aethiopum Mart. In Benin	Valere Salako	Benin
Multipurpose Trees Based Black Pepper (Piper Nigrum. L) Production Systems In Kerala, India: Biomass Production, Carbon Sequestration And Nutrient Fluxes	TK Kunhamu	India

# A-27B (26B) International To Local Forest Governance: Taking Stock Of Theories, Methodologies And Findings

	international to Local Forest dovernance. Taking Stoc		
Room:	251 A-C		
Organizers:	Lukas Giessen (University of Goettingen, Germany), Bas Arts (Wageningen University, Netherlands), Florian Kraxner (International Institute for Applied Systems Analysis, Austria) & Constance McDermott (University of Oxford, UK)		
Moderator:	Lukas Giessen		
Description:	This session aims at taking stock of innovative theoretical, methodologi from the local to the global level.	ical and empirical achievement	s in forest governance research,
	Forest Relevant Actions To The Three Rio Conventions	Michael Obersteiner	Austria
	Stakeholder Opinions On Bioenergy In Norway: Conflicting Perceptions Of Challenges And Opportunities	Berit H Lindstad	Norway
	Institutional Work: Community-Based Organizations As Change Agents In Public Lands Governance In The American West	Cassandra Moseley	United States
	The Assessment Of Forest Ecological Compensation System In The Southern China	Chengyue Tu	China
	Local Forest Governance Assessed Through Social Network Analysis: Comparison Of Three Case Studies In Italy, Bosnia Herzegovina, And Montenegro	Riccardo Da Re	Italy
Poster Preser	ntations:		
	Alternative Pathways To Sustainability – A Framework For Comparative Forest Policy Analysis	Karin Beland Lindahl	Sweden
	The Analysis Of Forest Governance And Social Capital: Theoretical And Methodological Links, Gaps And Overlaps	Riccardo Da Re	Italy
	Brazilian Forest Governance: Trends, And Obstacles, A Proposal To Be Implemented	Vitor Afonso Hoeflich	Brazil
	Forest Governance: A Study On Perception Of Actors Involved In The Forest Management Actions In The State Paraná (Brazil)	Vitor Afonso Hoeflich	Brazil
	International Influences On National Forest Policy: Analyzing Stakeholder Coalitions And Their Argumentation In The Revision Of Finnish Forest Act	Pia Katila	Finland
	Complexity Of Forest Tenure Issues And China's Collective Forest Tenure Reform	Hexing Long	China
	Examining The Impact Of Governance On The Effectiveness Of Forest Protected Areas: A Systematic Review Of The Evidence	Biljana Macura	Italy
	Forest Policy Re-Mix: Is History Bound To Repeat Itself In The Selection And Implementation Of Forest Policies And Instruments Across Latin America?	Kathleen McGinley	United States
	The Atlántida Platform: A Civil-Society Effort Promoting Good Governance In The Honduran Forestry Sector	Mirian Molina	Honduras
	State Of The Principles Of Good Forest Governance In Paraguay	Maria Laura Quevedo Fernandez	Paraguay

Trans-Atlantic Governance Of Sustainable Solid Wood Bioenergy Supply Chains	CT Smith	Canada
Challenges To Multi-Level Sustainability Governance Of Forest Bioenergy And Impacts For Production And Trade – Global Stakeholder Views And Experiences	Inge Stupak	Denmark
One Methodology, Two Realities: Partnering With Indigenous Peoples In The Peruvian Amazon	Andrea Vasquez	Canada

# A-34 (131) Forestry Education Serving Science And Practice

Room:	150 B		
Organizers:	Piotr Paschalis-Jakubovicz (Warsaw University of Life Sciences, Poland Adeyeye (IFSA/Bangor University, UK)	), Siegfried Lewark, University o	of Freiburg, Germany) & Yemi
Moderator:	Piotr Paschalis-Jakubovicz		
Description:	In this session strategies for improving higher forestry education will be technology and didactics of e-learning, movement towards Open Educa continuing education.		
	Changing The Perception Of A Natural Resource Education Program: A Case Study At Virginia Tech	Bob Smith	United States
	Introduction Of Sustainable Forestry Best Learning And Practice Into Russian Forest Higher Education: NGO's Approaches	Elena Kulikova	Russian Federation
	The Role And Tasks Of Research On Labour Psychology In The Ergonomic Education Of Foresters	Janusz Sowa	Poland
	Competency Surveys: What Empirical Surveys And Economic Models Can Tell Us About Competency Requirements In Working Life	Mika Rekola	Finland
	Curriculum Reengineering - The Key To Skill-Based Future Forest Education	Hans R. Heinimann	Switzerland
	IUFRO Learning Initiatives – A Necessary Tool For Lifelong Learning Of Forestry Graduates?	Krzysztof Sterenczak	Poland
	Recommendations For Forestry Science Education In North America: Results From The Berkeley Summit On Forestry Education	Kevin O'Hara	United States
	Need For New Learning Approaches In An Evolving World: An Example Dealing With Climate Change	Jean-Luc Peyron	France

#### // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

# B-05B (59B) The Benefits Of Introducing The Ecosystem Service Concept In Forest Management And Planning At Different Spatial Scales

Organizers:       Sandra Luque (IRSTEA, France) & Christine Fürst (ZEF Uni Bonn, Germany)         Moderators:       Sandra Luque & Christine Fürst         Description:       This session will examine how the distribution of ecosystem services and their monetary and non-monetary values can be influenced by changing scenarios (land use, climate) at different spatial scales, and the development of methodologies for mapping indicators that can be directly related to environmental policy assessments.         Exploring The Relationship Between Tree Species Diversity And Forest Ecosystem Services In The Face Of Climate Change       Susana Perez       Austria	Room:	250 E
Description:       This session will examine how the distribution of ecosystem services and their monetary and non-monetary values can be influenced by changing scenarios (land use, climate) at different spatial scales, and the development of methodologies for mapping indicators that can be directly related to environmental policy assessments.         Exploring The Relationship Between Tree Species Diversity And Forest       Susana Perez       Austria	Organizers:	Sandra Luque (IRSTEA, France) & Christine Fürst (ZEF Uni Bonn, Germany)
Description:       by changing scenarios (land use, climate) at different spatial scales, and the development of methodologies for mapping indicators that can be directly related to environmental policy assessments.         Exploring The Relationship Between Tree Species Diversity And Forest       Susana Perez       Austria	Moderators:	Sandra Luque & Christine Fürst
Niegna Paraz Allerra	Description:	by changing scenarios (land use, climate) at different spatial scales, and the development of methodologies for mapping indicators that
Ecosystem befores in the race of olimate onange		Exploring The Relationship Between Tree Species Diversity And Forest Ecosystem Services In The Face Of Climate Change Austria

Incentive Payments For Plant Biodiversity Conservation In Forests: Dynamic And Spatial Analysis	Emeline Hily	France
Spatial Modeling Of Ecological-Economic Tradeoffs: Bioenergy Production And Biodiversity Conservation In The Alps	Sabine Fuss	Germany
Spatial-Temporal Analysis Of Forest Ecosystem Services In The South Of Chile	Karla Locher	Germany
Forest Management For Ecological Restoration And Conservation Of Ecosystem Services Around Mexico City: An Applied Ongoing Case Study	Victor Avila-Akerberg	Mexico
Payment For Environmental Services Aims To Combating The Desertification In Irauçuba, Ceará-Brazil	Marco Andrés González Carantón	Brazil
Integrating Ecosystem Services And Forest Ecological Networks Into State Planning At Multiple Scales: The Experience From Colombia	Dolors Armenteras	Colombia
The Potential Of Payment For Watershed Protection In Ndaka-Ini Dam, Murang'a County, Kenya	Joram Kagombe	Kenya

#### B-07B (210B) Silvicultural Practices To Facilitate Forest Restoration

Room:	151 G		
Organizers:	Byung Bae Park (Chungnam National University, Republic of Korea), Palle Madsen (University of Copenhagen, Denmark) & Bryan Finegan (CATIE, Costa Rica)		
Moderator:	Palle Madsen		
Description:	This session will examine current research and practical experiences on silvicultural methods used to facilitate forest restoration, ranging from regeneration establishment to harvesting systems.		
	Achieving "Groupy-Clumpy" In Restoration Projects: Innovative Silviculture And Monitoring In The Front Range Collaborative Forest Landscape Restoration Project	Yvette Dickinson	United States
	Pioneer Species Used As Nurse Crops – A Powerful Silvicultural Method In Forest Restoration And Forest Adaptation	Palle Madsen	Denmark
	Growth And Mortality Assessment In Underplanting Nothofagus Seedlings As Function Of Resources Availability	Daniel Soto	United States
	Additive Partitioning Approach: Evaluating The Restoration Efficiency Of Plant Species Diversity In A Warm-Temperate Mountainous Riparian Forest In Japan	Satoshi Ito	Japan
	Biodiversity Benefits Of Restoration Of Boreal Forests In Finland	Anne-Maarit Hekkala	Finland
	Restoration Of Mixed-Pine Forest Ecosystems Of Eastern Upper Michigan Using Variable-Retention Harvesting	David Hix	United States
	A Mixed Species Clearcut Silviculture System To Restore Native Species Composition And Structure Of Old-Growth Forests In Western Washington	Gregory Ettl	United States
	Biodiversity Response To Trees Retained At Final Harvest For Conservation Purposes – A Meta-Analysis	Lena Gustafsson	Sweden

## B-19B (104B) Forests, Roots And Soil Carbon

*Room:* 155 F

*Organizers:* Cindy Prescott (University of British Columbia, Canada), Douglas Godbold (University of Natural Resources and Life Sciences, Austria), Heljä-Sisko Helmisaari (University of Helsinki) & Shalom Daniel Addo-Danso (FORIG, Ghana & University of British Columbia, Canada)

Moderator: Cindy Prescott

Description:	This session will present new insights on root contributions to soil carbon, particularly linked to forest management, climate change, biodiversity and ecosystem services.		
	Tree Root Systems And Nutrient Mobilization: Mineral Weathering By Rhizospheres And Deep Roots	Rob Harrison	United States
	C Input Into Forest Soil From Below- And Aboveground Litter In Climatically Contrasting Norway Spruce Forests	Heljä-Sisko Helmisaari	Finland
	The Relationship Between Fine Root And Litterfall Dynamics Across Various Types Of Temperate Deciduous And Coniferous Forests	Ji Young An	Japan
	Estimates Of Forest Fine Root Productivity Based On Functional Classification Of Fine Roots And Root Traits	Michael Luke McCormack	China
	Applicability Of Mesh Methods For The Estimates Of Fine Root Production In Forest Ecosystems	Mizue Ohashi	Japan
Poster Preser	ntations:		
	Effects Of Stand Structure Regulation On Soil Labile Organic Carbon Under Pinus Elliottii Plantation	Yuan-qiu Liu	China
	Different Allocation Patterns Of 18 Chemical Elements In Leaves, Branches, And Different Root Branch Orders Across 18 Species In Gurbantünggüt Desert In China	Zeqing Ma	China
	Fine Root Turnover Within Land-Use Change From Primary Forest To Degraded Forest And Oil Palm Plantation On Tropical Peat	Sebastian Persch	Indonesia
	Lateral Root Distribution Of Eucalyptus Camaldulensis And Eucalyptus Pellita Under Different Tree Spatial Arrangements	Geraldo G. Reis	Brazil
	Behaviour Of Roots Of Savanna Species In The Pantanal Wetlands, Brazil	Suzana Salis	Brazil
	Mycorrhizal Communities In Imperata Cylindrical Invaded And Non-Invaded Commercial Pinus Taeda Stands	Adam Trautwig	United States
	Free Air Humidity Manipulation (FAHM) Experiment In Estonia Provides New Knowledge Of Climate Change Effects On Northern Forests	Arvo Tullus	Estonia
	Precipitation Frequency Controls Interannual Variation Of Soil Respiration In A Subtropical Forest	Huimin Wang	China

## // FORESTS AND CLIMATE CHANGE

# C-01 (71) Climate Change: A Driver For Land-Use Change And Adaptive Forest Management On Six Continents

Room:	150 D		
Organizers:	J.P. Skovsgaard (Swedish University of Agricultural Sciences), Jean-Miche Science and Research, France), Ronald E. McRoberts (U.S. Forest Serv		0
Moderator:	J.P. Skovsgaard		
Description:	Presenting examples from around the world, this session aims to contrast impacts of climate change on land-use and adaptive forest management.		
	Impact Of Climate Change On Major Forest Ecosystem Services In Europe	Marc Hanewinkel	Switzerland
	Using 3PG To Assess Climate Change Impact On The Management Plan Optimization Of Eucalyptus Plantations. Case Study In Southern Brazil	João HN Palma	Portugal
	Socio-Economic And Policy Issues Of Climate Change For Forests In Asia	Bhaskar Vira	United Kingdom
	Species And Populations Growth Responses To Changed Climate: Implications For Adaptive Forest Management	Laura Leites	United States

A New Paradigm For Adaptive Management	Lucy Rist	Sweden		
Poster Presentations:				
Scenarios Of Future Climate For The Camagüey Province, Cuba: Possible Influence On The Forest Plantations Of Mediterranean Distribution	Lorge Acosta	Cuba		
Sex-Related, Growth-Climate Association Of Araucaria Angustifolia In Subtropical Planted Forests In Argentina	Stella Bogino	Argentina		
Opportunities For Climate Change Mitigation Through Afforestation And Reforestation Of Degraded Lands In The Sub-Saharan Africa	Tolulope Daramola	Nigeria		
"Shelterbelts System Of Agroforestry" – Improves Microclimate, Crop Yields, Carbon Sequestration, Mitigate Climate Change In Dry Land Ecosystem Of Peninsular India	Shivanna Honnurappa	India		
Vegetation Change In Boundou Natural Community Reserve, Region Of Tambacounda/Senegal From 1974 To 2010	Faye Laurice Codou	Senegal		

# C-07 (138) Forests, Fire And Climate Change Dynamics

Room:	150 C		
Organizers:	Bill de Groot (NRCan-Canadian Forest Service), Ainuddin Nurrudin (Universiti Putra Malaysia), Susan Conard (International Boreal Forest Research Organization, USA) & Pieter van Lierop (UN-FAO, Italy)		
Moderator:	Bill de Groot		
Description:	Presentations in this session will focus on the latest scientific understanding of climate change and future global fire regimes, feedback to the global carbon balance, expected human and environmental impacts, and potential management strategies to mitigate negative impacts.		
	Climate Change And Wildland Fires In The 21st Century	Mike Flannigan	Canada
	Challenges And Pitfalls In Quantifying The Interactions Between Fire And Changing Climate In The Boreal Zone	Susan Conard	United States
	Climate Change And Tropical Forest Fires: Impacts And Adaptation	Hety Herawati	Indonesia
	Forest Fires And Adaptation Options In Europe	Nikolay Khabarov	Austria
	Large Fires In The United States Under Changing Climate	Yongqiang Liu	United States
	Response Of Wildfire To Climate Change And Its Implications In Vegetation Dynamics In Northeast Chinese Boreal Larch Forests	Jian Yang	China
	Canadian Boreal Forest Timber Vulnerability To Current And Future Fire Risk	Sylvie Gauthier	Canada
	Climate Change And Fire Influence The Methane Uptake Capacity In Australian Eucalypt Forest Soils	Stefan Arndt	Australia

# C-14 (9) Forest Biomass And Carbon Inventory On Successive Occasions

Room:	150 E
Organizers:	Bianca Eskelson (Oregon State University, USA), Cris Brack (Australian National University) & Teresa Fonseca (University of Trás-os- Montes e Alto Douro, Portugal)
Moderator:	Bianca Eskelson
Description:	Speakers in this session will discuss national successive inventory designs that integrate factors such as biomass and carbon, and the challenges that arise when dealing with re-measurements, focusing on the importance of research in the development of methods.

National Biomass And Carbon Inventory Based On Sample Plots	Aleksi Lehtonen	Finland
A Synthesis Of Recent Model Evaluation Activities Conducted In Support Of Canada's National Forest Carbon Monitoring, Accounting, And Reporting System	David Greenberg	Canada
Challenges With Quantifying Causes Of Forest Carbon Flux From Remeasured Inventories	Andrew Gray	United States
Recent Technical Changes To The United States Forest Carbon Inventory	Christopher Woodall	United States
Evolution And Maintenance Of A Permanent Plot System In An Evolving Political And Technical Landscape	David Mannes	Australia
The Role Of Remote Sensing In U.S. Forest Inventories: Past, Present And Future	Gretchen Moisen	United States
Sources Of Sampling Errors Due To The Changes Of Sampling Design In Forest Monitoring	Katarina Merganicova	Slovakia
Efficient Sampling Techniques For The Estimation Of Deadwood Volume And Carbon Storage In Managed Forests	Tim Ritter	Germany
Difference Of Carbon Balance Through Forest Management And Timber Utilization At Different Cutting Periods	Masahiro Iwaoka	Japan

## C-21 (253) Complying With The IPCC Good Practice Guidance For Tropical Carbon Stock Inventories

Room:	150 F		
Organizers:	Ronald E. McRoberts (U.S. Forest Service)		
Moderator:	John Coulston (U.S. Forest Service)		
Description:	The session will address methods for complying with the two IPCC Good Practice Guidance estimation criteria: (1) neither over- nor under-estimation (bias), and (2) uncertainties are reduced as far as is practicable (precision).		
	Assessing REDD+ Performance And Evolving Monitoring Needs	Martin Herold	Netherlands
	Properties Of The Stock Change Method For Estimating Greenhouse Gas Emissions From Forests	Goran Stahl	Sweden
	Techniques For Using Maps To Enhance Estimates Of Forest/Non- Forest Change	Ron McRoberts	United States
	Use Of Multi-Temporal, Multi-Level Remote Sensing And Field Data For Retrospective Estimation Of Biomass In Remote Regions	Hans-Erik Andersen	United States
	Estimation Of Biomass And Change In Biomass And Corresponding Uncertainties In Sample Surveys Assisted By Airborne Laser Scanning	Erik Næsset	Norway
	Model-Dependent Inference For Biomass Estimation In A Lidar Sample Survey In Liwale, Tanzania	Svetlana Saarela	Finland

#### // FORESTS AND WATER INTERACTIONS

#### D-05B (256B) Managing Forests And Forest Uses To Protect And Provide Clean Water

Room:	155 E
Organizers:	Richard Harper (Murdoch University, Australia) & Jean-Michel Carnus (INRA, France)
Moderator:	Richard Harper

Description:	This session will examine the linkages between forests and forest wate users and consumers.	rshed management and water of	quality for rural and urban water
	Importance Of Forests To Water Quality In The United States	Thomas Brown	United States
	Modelling The Effects Of Forest Management On Water Quality In Sweden	Salim Belyazid	Sweden
	In-Stream E-Coli Bacteria Loading From Forest And Pasture Land Uses In The Attoyac River, East Texas, USA	Sarah Schwab	United States
	Forestry Reserves And The Regulation Of Water Quality And Algae Structure Of Ponds In A Sub-Saharan Region Of Africa	Bilasse Zongo	Burkina Faso
	Long-Term Forest Planning Taking Stream Water Quality Into Consideration	Johanna Lundström	Sweden
	Forests And Water: Contemporary Science And Its Relevance For Community Forestry In The Asia-Pacific Region	Regan Suzuki (Pairojmahakij)	Thailand
Poster Preser	ntations:		
	Towards Optimized Buffer Zones - Digital Terrain Indices As A Tool For Predicting The Most Sensitive Areas	Anneli Ågren	Sweden
	Enabling Environmental Excellence In Alberta Through Lidar Derived Wet Areas Mapping	Barry White	Canada
	Environmental Fragility Of The Iguaçu River Watershed, Paraná, Brazil	Ana Paula Dalla Corte	Brazil
	Riparian Forests In Pitangui River: A High Heterogeneous Landscape At South Brazil	Rosemeri Moro	Brazil
	Restoring The Eco-Hydrological Function Of The Forest On A Small Karst Island: Case Study On Nusa Penida Island, Bali (Indonesia)	Budi Hadi Narendra	Indonesia

## // FOREST BIOMASS AND BIOENERGY

#### E-01B (50B) Sustainable Biomass For Energy And Industrial Raw Materials: Evaluation Of Bioenergy Systems

Room:	150 G		
Organizers:	Viktor Bruckman (Commission for Interdisciplinary Ecological Studies, Austrian Academy of Sciences), Sanjeev Kumar Chauhan (Punjab Agricultural University, India) & Robert Jandl (Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Austria)		
Moderators:	Viktor Bruckman & Sanjeev Kumar Chauhan		
Description:	This session aims at disseminating state-of the art knowledge of sustainable woody biomass production from common woodland management systems, such as conventional forestry, short rotation forestry and agroforestry with a focus on sustainability in context of changing climate, carbon sequestration and trading, and social benefits.		
	Ecohydrological Impacts Of Feedstock Production For Bioenergy Across The Americas: A Multidisciplinary Study To Assess Long-Term Sustainability	Heidi Asbjornsen	United States
	Opportunities To Design Sustainable Bioenergy Systems	Virginia Dale	United States
	Impact Of Commercial Poplar And Willow Short Rotation Forestry Stands On Water, Soil, And Phytodiversity	Ioannis Dimitriou	Sweden
	Harnessing Green Energy From Green Gold: Case Study From Peninsular India	Syam Viswanath	India
	How Much Is Too Much?	Klaus Katzensteiner	Austria

Biomass Partitioning And Fuel Characterization Of Short Rotation Tree Species	Sanjeev Chauhan	India
Carbon, Water And Nutrient Balances Of An Eucalyptus Grandis Plantation In Brazil Over A 5 Year Period	Yann Nouvellon	France
Evaluation On Invasive Species Characteristics And Visions Of Rural People To Introduced Species Prosopis Juliflora (SW.) DC. In Dry Zone Of Myanmar	Wai Wai Than	Myanmar (Burma)

#### E-08B (106B) Biobased Products And Bioenergy

Room:	250 B		
Organizers:	Jianchun Jiang, Fuxiang Chu (Chinese Academy of Forestry), Dominiqu (West Virginia University, USA)	ie Lachenal (Grenoble INP-Pago	ora, France) & Jingxin Wang
Moderator:	Jianchun Jiang		
Description:	This session will feature current scientific developments on biomass m biomass into useful products and energy, including techniques under c (textile) and for higher value cellulosic polymers and materials.		
	Oil Content And Fatty Acid Profile Of Calophyllum Brasiliense Cambes: A New Resource For Biodiesel Feedstock In Mexico	Antonio Bernabe-Antonio	Mexico
	Determination And Quantification Of Fatty And Resin Acid Composition In Boreal Lodgepole Pine And Scots Pine For Biorefinery Applications	Tommy Mörling	Sweden
	Two-Stage Autohydrolysis Pretreatment Combined With Refining For Improved Enzymatic Hydrolysis Of Hardwood	Hasan Jameel	United States
	Effect Of Chemical Pretreatments On Bamboo For Bioethanol Production	Zhiqiang Li	China
	Extraction Of Hemicelluloses From Eucalyptus Globulus Woodchips For Their Valorisation Into Surface-Active Agents	Dominique Lachenal	France
	Progress In Dissolving Pulp Manufacture	Annariikka Roselli	Finland
	Phenolation Of Kraft Lignin Catalyzed By Boron Trifluoride	Hou-min Chang	United States
	Storage Of Torrefied Wood – Investigating The Sorption Properties And Susceptibility To Fungal Degradation	Maija Kymäläinen	Finland

# // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

#### F-10 (164) Precision Land-Use Management - State And Perspectives

Room:	151 B
Organizers:	Hans R. Heinimann (ETH Zurich, Switzerland) & Woodam Chung (Oregon State University, USA)
Moderator:	Woodam Chung
Description:	This session will explore principles, technologies, and applications of precision land-use management, an emerging, engineering-driven concept based on the vision that future land-use management systems will be able to purposefully control and coordinate biological, technical, and administrative processes in about real-time.
	Validation Of Timber Volume Maps Derived From Remote Sensing Data Jochen Breschan Switzerland

Optimizing The Selection Of Individual Tree In Thinning Treatments To Reduce Crown Fire Potential	Marco Contreras	United States
Development And Validation Of A Physically Based Forest Operations Model	Lindsay Grayson	United States
Design Of Efficient Harvesting Units Using Remote Sensing Information And Field Data	Andreas Hill	Switzerland
Evaluating The Best Locations In Coniferous Plantations For The Natural Regeneration Of Broadleaved Forest	Ryohei Morimoto	Japan
Key Initiatives To Enable Sustainable And Profitable Hardwood Silviculture	Gaetan Pelletier	Canada
An Optimization Model Of Masson Pine Multiple Functional Management In South China	Decheng Zhang	China
Social And Economic Consequences Of Eucalyptus Plantation Management	Benjamin Engler	Germany

# F-13 (55) Planted Forests: Meeting Future Global Forest Product Needs Sustainably

Room:	151 C		
Organizers:	Dave Cown (Scion, New Zealand) Jean-Michel Carnus (National Institut France), Tim Payn (Scion, New Zealand), João Palma (Technical Univers	_	ltural Science and Research,
Moderator:	Jean-Michel Carnus		
Description:	This session will examine the growing importance of planted forests an affecting the wider environment, and will focus on integrated or system all aspects of forest management.		-
	Contribution Of Planted Forest To Sustainable Production Of Forest Products And Ecosystem Services	Thomas Fox	United States
	Complexity Of Governance Of Planted Forests	Daniela Kleinschmit	Sweden
	Future Expectations Of Forest Soils	Peter Clinton	New Zealand
	Future Role Of Plantations In Europe	Mart-Jan Schelhaas	Netherlands
	Integrating Our Understanding Of Water, Nutrition, And Physiology To Manage Tropical Eucalyptus And Acacia Plantations	Daniel Mendham	Australia
	Management And Valorization Of Stone Pine (Pinus Pinea L.) Stands In Tunisia: Innovations For A Better Governance	Abdemhamid Khaldi	Tunisia
	Modeling Potential Site Productivity For Japanese Cedar For Selecting Suitable Sites For Managing Planted Forests	Yasushi Mitsuda	Japan
	Sustainability Of The Portuguese Eucalyptus Forest Under Different Scenarios Of Wood And Biomass Demand, Forest Management, And Climate Scenarios	Margarida Tomé	Portugal
	Using A Criteria And Indicators Framework To Explore Future Impacts Of Planted Forests On New Zealand's Economy, Environment, And Society	Tim Payn	New Zealand
	Introduction Of Eucalyptus Species In Chile	Santiago Barros	Chile

#### // FOREST HEALTH IN A CHANGING WORLD

#### G-02 (14) Ozone And Forest Health

*Room:* 151 A

*Organizers:* Zhaozhong Feng (Chinese Academy of Sciences) & Elena Paoletti (National Research Council, Institute of Plant Protection, Italy)

Moderator: Zhaozhong Feng & Elena Paoletti

**Description:** This session is focused on the impacts of climate change on ground-level ozone formation and ozone damage to vegetation worldwide.

	Ozone Changes And Impacts In North American Forests	Andrzej Bytnerowicz	United States
	Can We Predict Tree Response To Ozone Under Climate Change? - Current Status And Perspectives	Rainer Matyssek	Germany
	Interactions Of Ozone And Selected Physiological Characteristics Of Mountain Spruce Forest In Beskydy Mts., Czech Republic	Pavel Cudlin	Czech Republic
	Reducing Modelling Uncertainties In Ozone-Risk Assessment For Mediterranean Forests From Comparison Of Modelled And Measured Phytotoxic Ozone Dose (POD) Data	Alessandra De Marco	Italy
	Leaf Mass Per Area Elucidates Ozone Sensitivity Of Woody Species	Zhaozhong Feng	China
	Interaction Of Altered Tropospheric Ozone Concentrations With Loblolly Pine Decline	Jeffrey Chieppa	United States
	Ambient Ozone And Its Damage Symptoms Occurred In Sensitive Plants In Beijing, China	Xiaoke Wang	China
Poster Presei	ntations:		
	Ecophysiological Responses Of Beech (Fagus Crenata) Stressed By Ozone Exposure And/Or Water Shortage	Hideyuki Shimizu	Japan
	Ozone Stomatal Flux-Based Critical Levels Translated Into Real-World Forest Impacts	Alessandra De Marco	Italy
	Stomatal Ozone Flux-Response Relationship For Visible Injury And Net Photosynthesis In Poplar Trees Treated With Or Without Edu	Elena Paoletti	Italy

#### G-11 (15) Societal Impacts Of Invasive Forest Pathogen And Pests

Room:	151 E		
Organizers:	Matteo Garbelotto (University of California at Berkeley, USA), Giles Hard Turin)	dy (Murdoch University, Australia	a) & Paolo Gonthier (University of
Moderators:	Matteo Garbelotto & Giles Hardy		
Description:	This session will explore the social impacts related to the loss of native	e forests to exotic insects and d	isease.
	Developing Wilt Resistant Acacia Koa For Restoration And Reforestation In Hawaii	Nicklos Dudley	United States
	In Spite Of Different Perceptions And Responses To Sudden Oak Death, Involvement Of The Public, Key To Large-Scale Management Of The Disease	Matteo Garbelotto	United States

How Invasive Pathogens And Pests May Threaten A Multipurpose Tree Species: The European Chestnut As A Case Study	Paolo Gonthier	Italy
Impact Of Invasive Phytophthora Species On Wildland Plant Communities In Western Australia And Society Responses To Their Management	Giles Hardy	Australia
Invasion Of Miconia Calvescens In Pacific Island Ecosystems: Impacts And Responses	Todd Osmundson	United States
Risk Management In Response To Threat Of Tree Disease: Social And Economic Barriers	Chris Quine	United Kingdom
Current Status Of Emerging Plant Diseases And Pest Of Plantation Forestry In Colombia	Carlos Rodas	Colombia
Wider Consequences Of Introduced Forest Pathogens To Society In The UK	Joan Webber	United Kingdom

# G-17 (94) Changes In Distributional Ranges In A Changing World

Room:	250 F		
Organizers:	Patrick Tobin (U.S. Forest Service) & Christelle Robinet (National Institut URZF, France)	te for Environmental and Agricu	Itural Science and Research-
Moderator:	Christelle Robinet		
Description:	The session is focused on abiotic and biotic drivers of changes in spec	ies distribution ranges for both	invasive and native species.
	The Importance Of Range Dynamics Of Insects And Pathogens In Forest Ecosystems	Christelle Robinet	France
	Introduced Tachinids Explain Decline Of Browntail Moth In North America	Joseph Elkinton	United States
	Modeling Spatial Spread Of The Pine Wilt Disease - An Individual- Based Approach	Fugo Takasu	Japan
	Potential Northward Expansion Of Spruce Budworm Outbreaks Under Climate Change And Related Impacts On Forest Ecosystems	Jean-Noel Candau	Canada
	Climate-Associated Range Shifts Of Mountain Pine Beetle In Western Canada	Brian Aukema	United States
	Range Expansion Of The Pine Processionary Moth In Relation To Climate Warming	Andrea Battisti	Italy
	Influence Of Increasing Summer Temperatures On Range Dynamics Of An Invasive Forest Pest And Its Host Tree	Angela Mech	United States
	Supraoptimal Temperatures Restrict And Retract The Distributional Range Of The Gypsy Moth	Patrick Tobin	United States
	Consequences Of Climate Change For Biotic Disturbances In North American Forests	Matthew Ayres	United States
	Range Expansion In Insect Pests: How Important Is Climate Change?	Stig Larsson	Sweden

Special Session for Students and Young Scientists: The "IUFRO Incubator" 3			
Room:	155 A-C		
Organizers:	JP Skovsgaard (Swedish University of Agricultural Sciences), other IUFRO D Association (IFSA)	Divisional representatives & the In	ternational Forestry Students
Moderators:	Jakob Horl (IFSA) & James Johnson (Oregon State University, USA)		
Description:	This session will provide a venue for recently graduated students to presen forest policy, social sciences, and forest economics.	t brief summaries of their BSc, N	/ISc or PhD theses in the fields of
	The Politics Of Access, Utilization And Sharing: Lessons From The Ongo Community Forest, Uganda	Yemi Adeyeye	Denmark
	Rethinking Forestry, Beyond The Neoclassical: Case Study Of Quebec	Flor de María Robles-Barreto	Canada
	Participatory Mapping For A Better REDD+ Achievement	Anne Bernard	Canada
	The Political Economy Of Jurisdictional REDD+ Design	Elizabeth Blanchard	United States
	How Illegal Logging Policy Is Made - Discursive Agency In International Forest Policy	Sina Leipold	Germany
	Evaluation Of Market Potentials And Socio-Economic Contribution Of Some NTFPs In Two Ecological Zones, Ondo State, Nigeria	Aladesanmi Daniel Agbelade	Nigeria
	An Economic Assessment Of The Impact Of Raoiella Indica On The Nariva Swamp, Trinidad And Tobago	Marc Garcia	Trinidad and Tobago
	Long-Term Outlook For European Wood Products Markets	Elias Hurmekoski	Finland
	A Gender Sensitive Analysis Of The Marketing Of Agroforestry Tree Products Associated With Cocoa Cultivation In Sierra Leone	Mali Nurith Boomkens	Netherlands
	Can Local Inhabitants Of The Monarch Butterfly Biosphere Reserve Manage Their Forests For Timber Sustainably?	Julia Calderon	Mexico
	Monarch Butterfly Biosphere Reserve 2012 Forest Fires: Characterization And Institutional Responses	Mariana Xanat Cantu Fernandez	Mexico
	Finnish Forest Professionals' Attitude Towards Uneven-Aged Forest Management	Zhuo Cheng	Finland
	Stakeholders' Perspectives On Ecosystem Services Of Sweden's Last Cultural Oak Landscapes	Pablo Garrido	Sweden
	Bamboo Resource Commercialization Options For Ethiopia	Tefera Belay Endalamaw	Germany
	Conservation Education And Motivations Of Farmland And Woodland Owners In West Virginia—A Pilot Assessment	Valerie Grant	United States
	Wildland Fire Risk Assessment For Structures: A National Park Service Case Study	Aaron Lund	United States
	Beliefs, Attitudes, And Behaviour In Relation To Farm-Level Tree Planting And Deforestation In Malawi	Seline Meijer	Ireland
	Appraising Climate Change In Rural Forest Dependent Communities Of South Africa: Community Perceptions And Attitudes	Chidiebere Ofoegbu	South Africa
	Social Considerations In Community Forest Management: A Case Study In Sault-Au-Cochon Forest, Côte-De-Beaupré, Québec	Gabrielle Rivard	Canada
	Crop Diversity Of Upland Farms In Apayao, Northern Philippines	David Rodolfo	Philippines
	History Of Russia's Timber Frontier Through Mapping Forest Use History	Vladimir Naumov	Sweden
	Rehabilitation Of War Veterans With Posttraumatic Stress Disorder In A Healing Forest Garden	Dorthe Varning Poulsen	Denmark
	Qualitative Study Of User-Specific Behaviour In, And Preferences Of Different Categories Of Nature Environments In The Healing Forest Garden Nacadia	Ulrik Sidenius	Denmark
	Contingent Valuation Of Biodiversity In Primary Koa-Dominated Forests In Hawaii	Katherine Wilson	United States

# Daily Scientific Program THURSDAY 9 OCTOBER

# NOTES

# THURSDAY 9 OCTOBER - PLENARY SESSION 8:30-10:30 & 11:00-12:00 - SPECIAL JOINT PLENARY WITH SAF-CIF

# Plenary 3: Jack Dangermond And David Haskell: Knowledge Discovery, Synthesis, And Application At The Forest Science/Management Interface

Room:	Ballroom
Session Chair:	Jeremy Fried
Plenary Panel:	Mila Alvarez, Sally Collins, and Michael Wingfield with Jack Dangermond and David Haskell
Panel Moderator:	Nalini Nadkarni
Description:	The central questions to be addressed include what knowledge is, how it can be acquired, and the extent to which things can be "known" about forests and the landscapes where they are found. From this vantage point, how does what we learn through research and adaptive management about both natural and social systems get transformed into usable knowledge, and ultimately, wisdom about forests and how we can steward them for the many products and values they provide that sustain and improve the human condition. Speakers will address the state of the art in "knowing" about forests and related natural resources; observe ways in which we can both acquire science-based knowledge and make that knowledge useful to managers and the constituencies they serve; and challenge us to do better, perhaps differently, for the future around the world. Two keynote speakers followed by a distinguished panel discussion will address the topic of knowledge discovery, synthesis and application at the forest science/management interface.

# THURSDAY 9 OCTOBER- SUB-PLENARY SESSIONS 13:30-15:00

SP-09 Forests For People: Ecosystem Services Under Pressure?			
Room:	155 E		
Organizers:	Ulrike Pröbstl-Haider (University of Natural Resources and Life Science	s, Austria) & Perry Brown (Univ	ersity of Montana, USA)
Moderators:	Ulrike Pröbstl-Haider		
Description:	This session will highlight the current state-of-knowledge on the direct contributions of forests to human well-being in rural and urban landscapes, including their role in supporting livelihoods, health, recreation and tourism, spirituality, culture, and education.		
	Stretching Community-Based Ecosystem Management To Protect Indigenous Livelihoods: The Beardy's And Okemasis First Nation And The Prince Albert Model Forest	Sarah Welter	Canada
	Reforestation In The Anthropocene: Biological And Societal Perspectives On Genetic Decisions	Sally Aitken	Canada
	The Role Of Forest Provisioning Ecosystem Services In Coping With Household Stresses And Shocks In Miombo Woodlands Of Zambia	Felix Kalaba	Zambia
	The Future Of Outdoor Recreation, Society And Forests In The United States	Ken Cordell	United States
	Introduction To The IUFRO Forests For People Strategy	Ulrike Pröbstl-Haider	Austria

CD 10 Desiliance Of Ferret Fessueters Convises To Observing Disturbance Desires			
SP-TU Resi	lience Of Forest Ecosystem Services To Changing Distu	Dance Regimes	
Room:	155 F		
Organizers:	Rupert Seidl (University of Natural Resources and Life Sciences, Austria	a) & Tom Spies (U.S. Forest Ser	vice)
Moderators:	Rupert Seidl & Tom Spies		
Description:	The session will address questions of how forest disturbance regimes are to such changes, and how ecosystem management can foster resi		-
	Disturbance Regimes And Ecosystem Services In A Changing World	Rupert Seidl	Austria
	Resilience In Forest Ecosystem Management - An Introduction From The Western Us And Northwestern Mexico	Scott Stephens	United States
	Climate Change And Disturbance Regimes In Western North America: Pathways For Building Resilience	David Peterson	United States
	Risks For Ecosystem Services Provisioning From Natural Disturbance: A European Perspective.	Mart-Jan Schelhaas	Netherlands
	Resilience Of Forest Ecosystem Services To Changing Disturbance Regimes: A Synthesis	Thomas Spies	United States
	nces In Large-Scale Forest Inventories To Support The / And Ecosystem Services	Monitoring And The Ass	essment Of Forest
Room:	155 A-C		
Organizers:	Anna Barbati (University of Tuscia, Italy), Piermaria Corona (Consiglio p Frédéric Gosselin (Irstea, France) & Ronald E. McRoberts (U.S. Forest S		one in Agricoltura, Arezzo, Italy),
Moderators:	Anna Barbati		
Description:	This session will explore recent progress in the development of indicat on ecosystem services provision, and cutting-edge inventory methods indicators on multiple spatial scales.	0	
	Contribution Of Floristic And Forest Inventory Of Santa Catarina (IFFSC) To Large Scale Forest Biodiversity Assessment	Alexander Vibrans	Brazil
	Inference On Diversity Indexes From Large-Scale Forest Inventories	Piermaria Corona	Italy
	Development Of Innovative Models For Multiscale Monitoring Of Ecosystem Services Indicators In Mediterranean Forests	Marco Marchetti	Italy
	Assessing Information For Indicators On SFM: Potentials And Pitfalls, Criteria And Indicators (C&I) Have Emerged As A Powerful Tool To Promote Sustainable Forest Management (SFM). Several International Programs And Initiatives Have Developed Sets Of Criteria	Michael Koehl	Germany
SP-12 Polic	ey Learning For Multi-Level Governance		
Room:	251 A-C		
Organizers:	Daniela Kleinschmit (Swedish University of Agricultural Sciences) & Ber	n Cashore (Yale University, USA	)
Moderators	Daniela Göbler (World Bank, USA)		

Moderators: Daniela Göhler (World Bank, USA)

Description:	This session will explore the potential and pitfalls of policy learning as a way to link scholarly and practitioner communities around problem solving, identify the types of problems policy learning might be able to address, and discuss the current scientific understanding of policy learning processes, and how policy learning can be fostered.		
	The Role Of Policy Learning In Shaping Pathways Of Influence: Lessons From Multi-Level Forest Governance For Designing An Effective Learning Architecture	Benjamin Cashore	United States
	Can Policy Learning Improve Strategic Insights For Practitioners And Policy Makers? Lessons From Collaborative Research On Legality Verification In Brazil	Gabriela Bueno	United States
	Science-Policy Advocacy: Creating New Social Institutions For Policy Learning	Margaret Shannon	United States

# THURSDAY 9 OCTOBER - TECHNICAL SESSIONS 08:00-10:30

# // FORESTS FOR PEOPLE

A-14 (251)	Integrating Landscape Protection, Nature-Based Recrea	tion And Tourism, And R	ural Development
Room:	151 A		
Organizers:	Tuija Sievanen (Finnish Forest Research Institute), Ellyn K. Damayanti (E Tsukuba, Japan)	Bogor Agricultural University, Ind	donesia) & Taiichi Ito (University of
Moderators:	Ellyn K. Damayanti & Taiichi Ito		
Description:	This session deals with research, planning, and management of protect research on integration of local communities with the parks to enhance		
	An Analysis Of Long-Distance Trail Development In Japan Based On Protected Area Management And Rural Development	Taiichi Ito	Japan
	Is The Sustainable Forest Management For Ecotourism A Food Security Plan?	Sandra Rodriguez	Mexico
	Linking Empowerment Outcomes, Social Capital And Gender In Forest- Based Community Ecotourism In Ghana. A Multi-Method Approach	Ana Elia Ramon Hidalgo	Canada
	Using Future Scenario Analysis To Support Participatory Forest Landscape Planning In Vilhelmina, Northern Sweden	Julia Carlsson	Sweden
	Integrating Community Development With The Management Of Grasslands And Wetlands At Ke'Erqin Nature Reserve, Inner Mongolia, China	Yiwen Zhang	China
	Conservation Of Rafflesia Zollingeriana: Integrating Conservation Policy With Local Livelihood	Ellyn Kathalina Damayanti	Indonesia
	Effects Of Anthropogenic Activities On Forest Landscape In The Khumbu Valley, Nepal	Matteo Garbarino	Italy

# A-19 (5) Wood And Forest Culture: Merging The Past With The Present

Room: 151 DOrganizers: Howard Rosen (U.S. Forest Service) & Woo Chun Young (Kookmin University, Republic of Korea)

Moderators:	Howard Rosen		
Description:	This session will examine the historical, religious, artistic, and other social values of wood and forest culture, emphasizing the economic, environmental, and scientific impacts to different regions of the world.		
	Vatican Coffins Project: The Wood Analysis Of The Third Intermediate Period Coffins (Egypt)	Victoria Asensi Amoros	France
	Forests For Bamiléké People: Founding Principles Of The Identical Values And Source Of The Community's Economic Development	Nayang Toukam Inocent	Cameroon
	Plantation Grown Tree Species For Wood Carving In Ghana: Concerns Of Traditional Wood Carvers	Emmanuel Appiah-Kubi	Ghana
	Emerging Patterns In The Utilization Of Wood And Plastic Products In Building Construction At Ibadan University Campus, Nigeria	Abel Olorunnisola	Nigeria
	Traditional Wooden Architecture In The Alpine Regions	Antonio Frattari	Italy
	Utilization Of Different Austrian Wood Species In Past Times – Knowledge For The Future	Michael Grabner	Austria
	Protecting Amazon Tropical Forests For The Future: Program São Paulo Friends Of Amazonia	Mario Tommasiello	Brazil
	Study On The Forest Culture Construction Of The Olympic Forest Park In China	Cui Haixing	China

# A-26 (91) Impact Of Tenure Arrangements On Forests, Livelihoods And Gender Dynamics

Room:	150 B		
Organizers:	Purabi Bose (CIAT, Colombia), Anne Larson (CIFOR, Peru), Han van Dijk (CIFOR, Indonesia)	(Wageningen University, Nethe	rlands), Bimbika Sijapati
Moderators:	Han van Dijk & Purabi Bose		
Description:	This session examines the implications of forest and land tenure reform institutions, governance, livelihoods, and gender dynamics.	ns (in Asia, Africa and Latin Am	erica) with emphasis on local
	How Forest Tenure Mediates Forest Based Rural Livelihoods: Observations From A Global Study On Forests And Poverty	Pamela Jagger	United States
	Dryland Forest Tenure, Political Conflict, And Gender Dynamics In The Sahelian Zone	Han van Dijk	Netherlands
	Influence Of Tenure And Gender On Livelihood Values And Management Of NTFPs In Burkina Faso	Michael Philippe Bessike Balinga	Burkina Faso
	Forest Tenure, Collective Rights, And Gender Dimensions In India, Uganda And Bolivia	Purabi Bose	India
	Challenges And Opportunities For Women's Participation In The Management Of Communal Forests: Experience From Nicaragua's Indigenous Territories	Anne Larson	Peru
	Gender Participation In Mangrove Conservation And Rehabilitation: The Case Of Four Philippine Mangrove Project Areas	Aida Lapis	Philippines
	Mainstreaming Gender Into Forest Strategy Of Nepal	Madhu Ghimire	Nepal
	The Significance Of Supporting Structures For Enhanced Participation Of Women In Forest Management	Kanna Siripurapu	United States

#### // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

#### B-12 (122) Forest Management In Montane Communities.

Room:	150 A		
Organizers:	Pil Sun Park (Seoul National University, Republic of Korea), Raffaele Cavalli (University of Padua, Italy), Roberto Tognetti (University of Molise, Italy) & Karl Stampfer (University of Natural Resources and Life Sciences, Austria)		
Moderators:	Pil Sun Park & Raffaele Cavalli		
Description:	This session will focus on scientific findings of montane ecosystems and forest practices that contribute to the sustainable management of mountain resources and landscapes and socio-economic development of mountain communities.		
	Multifunctional Governance Of Mountain Forests In Europe	Zuzana Sarvasova	Slovakia
	The Role Of Lawu Montane Forests: Lithocarpus Sundaicus (Bi.) Rehd. In Ecological And Economical Aspect For Local People	Adi Gangga	Indonesia
	Stand Structure And Vegetation Of The Deciduous Mixed Oak Forests In The Montane Zone Of The Western Qinling Mountains, China	Chunling Dai	Germany
	State Of The Art And Perspectives Of European Cable Yarding Technologies And Systems	Karl Stampfer	Austria
	Prospectives And Challenges Of Cable Logging In Japan	Hideo Sakai	Japan
	Forest Operation Engineering And Management For Sustainable Use Of Mountain Forests	Raffaele Cavalli	Italy
Poster Prese	ntations:		
	Impact Of Anthropogenic Disturbances On High Value NTFPs In Temperate Moist Oak Forest: A Case Study From The Eastern Himalayas, India	Tamalika Chakraborty	Germany
	Seasonal Changes In Understory Composition On Mt. Joongwang, Korea	Pil Sun Park	Republic of Korea
	Landscape Patterns In Mountain Pasture-Woodlands Under Changing Environmental Conditions	Harald Bugmann	Switzerland
	Tree Species Diversity And Abundance As Indicators Of Understory Diversity And Abundance In French Mountain Forests: Variations In Ecological Space	Frédéric Gosselin	France
	Improved Methods For Timber Extraction In South-West China	Dirk Jaeger	Germany

# B-18 (142) Ecology And Dynamics Of Dead Wood Dependent Species At Multiple Trophic Levels – Promoting Natural Pest Control In Managed Forests Or Increasing Hazards?

Room:	150 C		
Organizers:	Stephen Pawson (Scion, New Zealand), Kimiko Okabe (Forestry and Forest Products Research Institute, Japan) & Antoine Brin (University of Toulouse, France)		
Moderators:	Kimiko Okabe & Michael Ulyshen (U.S. Forest Service)		
Description:	This session will discuss the full spectrum of saproxylic species, highlighting the functional importance of deadwood across multiple trophic levels within managed forest ecosystems.		
	Wood-Inhabiting Fungi Diversity Response To Management Abandonment: A Spatiotemporal Perspective	Frédéric Gosselin	France

An Early Evaluation Of Restoring Natural Disturbances In Boreal Forest Landscapes: Flat Bugs (Aradus Spp.) As Indicators Of Success	Ruaridh Hägglund	Sweden
Combining Of Aggregated And Dispersed Retention Is Effective For Conserving Deadwood-Associated Beetles On Managed Landscapes	Seung-II Lee	Canada
Effects Of Structural And Deadwood Attributes On The Abundance Of Saproxylic Beetles And Microhabitats In A Silver Fir Forest (Italy).	Fabio Lombardi	Italy
Exploring The Connection Between Arthropod-Accelerated Wood Decay And Forest Productivity	Michael Ulyshen	United States
Effect Of Climate Change And Wood Properties On Fungal Decomposition: Comparison Between Kelo (Old Growth) And Managed Boreal Scots Pine	Parvathy Venugopal	Finland
Colonization And Extinction Rates In Deadwood Substrates And Their Role In Conservation And Restoration	Timothy Work	Canada

#### // FORESTS AND CLIMATE CHANGE

#### C-16 (117) Remote Sensing In Carbon Balance Evaluation And Monitoring

Room:	150 E		
Organizers:	Tomasz Zawila-Niedzwiecki (General Directorate of the State Forests, Poland), Mathias Schardt (Joanneum Research, Austria) & Radomir Balazy (Forest Research Institute, Poland)		
Moderators:	Tomasz Zawila-Niedzwiecki		
Description:	This session will explore innovative methods for carbon assessment based on airborne or satellite remote sensing data.		
	Satellite-Observed Changes In Terrestrial Photosynthetic Activity Trends Across The Asia-Pacific Region Associated With Land Cover And Climate From 1982 To 2011	Baozhang Chen	Canada
	Carbon Mapping Of Regrowth In Tropical Rain Forests Using Airborne Lidar Data In Berau, East Kalimantan, Indonesia	Yousif Hussin	Netherlands
	Assessing Carbon Stocks And Socioeconomic Indicators Of Complex Landscapes	Henry Neufeldt	Кепуа
	Forest Carbon Mapping using Multiple Source Remote Sensing Data In The Greater Mekong Subregion	Yong Pang	China
	Methods for EU-wide Mapping of Growing Stock and Above-Ground Biomass Based on Satellite Remote Sensing and Field Measurements	Mathias Schardt	Austria
	Forest Carbon Monitoring With Satellite 3D SAR	Svein Solberg	Norway
	Forest Above Ground Biomass Estimation in China	Yuan Zeng	China

#### C-20 (248) National Forest Sector Greenhouse Gas Inventories Following IPPC Guidance And Guidelines: Requirements, Methods, And National Examples

Room:	251 A-C
Organizers:	Werner A. Kurz (NRCan-Canadian Forest Service), Gregory Reams (U.S. Forest Service) & Thelma Krug (National Institute for Space Research-INPE, Brazil)
Moderators:	Werner A. Kurz & Gregory Reams

Description:	National greenhouse gas inventories following IPCC guidance are established in many countries and this session will report on requirements, experiences and challenges with particular emphasis on acquisition of land cover and land use data required for greenhouse gas reporting.		
	IPCC Guidance For The Preparation Of National Forest Sector GHG Inventories	Thelma Krug	Brazil
	Relative Contributions Of Land Use And Land Cover Change To Forest Carbon Stock Change	John Coulston	United States
	Methods Of Integrating Remote Sensing And Ground Data In Carbon Accounting Systems	Robert Waterworth	Australia
	The EU Greenhouse Gas Inventory: Experience And Challenges When Dealing With 28 Different National Forest Inventories	Giacomo Grassi	Italy
	Plans For Integrating Carbon Accounting Models And Intensive Carbon Monitoring Sites Into A Tier 3 Approach In Mexico	Marcela Olguín	Mexico
	National Forest Sector Greenhouse Gas Inventory: Russian Example	Dmitry Zamolodchikov	Russian Federation
	Canada's National Forest Carbon Monitoring, Accounting, And Reporting System: Experiences And Next Steps	Werner Kurz	Canada
	Estimating Carbon Stored In Harvested Wood Products For Greenhouse Gas Inventories - IPCC Requirements And Advances In National Methods	Kenneth Skog	United States

## // FORESTS AND WATER INTERACTIONS

# D-02A (80A) Conceptual Frames And Research Strategies For Integrated Studies Of Adaptation To Drought

Room:	150 F		
Organizers:	Philippe Rozenberg (National Institute for Environmental and Agricultura Sanders (University of Melbourne, Australia)	al Science and Research, Franc	ce), Anne Griebel & Gregor
Moderators:	Anne Griebel		
Description:	The session will focus on ecophysiological, genetic, and dendrochronological studies that shed light on xylem adaptive potential to drought in experimental trials as well as in natural populations, including studies of population variation within species as affected by climatic conditions.		
	The Physiology Of Tree Mortality From Drought	Henry Adams	United States
	The Performance Of Ten Ghanaian Tree Species In Response To Drought And Shade	Lucy Amissah	Ghana
	Hydraulic And Ecophysiological Traits Related To Tree Drought Mortality Are Linked To The Aridity Of The Environment In Eucalypts	Stefan Arndt	Australia
	Response Of Pinon And Juniper Respiration To Drought And Warming	Adam Collins	United States
	Variability In Biomass Partitioning, Growth, And Survival Under Water Stress In Seedlings From Two Populations And Three Breeding Generations Of Pinus Radiata In Chile	Sergio Espinoza	Chile
	Unraveling The Adaptive Meaning Of Wood In Eucalyptus Species	Maria Elena Fernandez	Argentina
	Growth, Water Use, And Water Use Efficiency Of Eucalyptus Under Different Spacings And Genotypes	Rodrigo Hakamada	Brazil
	Species Response To Drought And Late Frost Is Affected By Species Diversity	Anke Jentsch	Germany

#### // FOREST BIOMASS AND BIOENERGY

E-04 (137A) Forest Biomass Supply Chains: Practice, Economics, And Carbon Balance			
Room:	250 A		
Organizers:	Nate Anderson (U.S. Forest Service), Gustaf Egnel (Swedish University University, USA)	of Agricultural Sciences) & Woo	dam Chung (Oregon State
Moderators:	Nate Anderson		
Description:	This session will cover a wide range of forest biomass supply chain stu operations research, conversion technologies, logistics management, e utilization.		
	A Review Of Wood Fuel Sourcing Potentials And Sustainability Challenges In Different Regions Of The World	Niclas Scott Bentsen	Denmark
	Influence Of Forest Resource Capacity, Logistics, And Public Policy For Co-Combustion Of Woody Biomass	Michael Goerndt	United States
	Impact Of EU RES Policies On The Use Of Wood For Energy And International Trade Of Wood Biomass And Pellets	Alexander Moiseyev	Finland
	Forest Biomass Supply Chains: Practice, Economics, And Energy Balance In Tochigi Prefecture, Japan	Kazuhiro Aruga	Japan
	Modeling The Profitability Of Power Production From Short-Rotation Woody Crops In Sub-Saharan Africa	Thomas Buchholz	United States
	Economics Of Forest Biomass Processing And Transport From Harvest Residues In Steep Terrain	Rene Zamora-Cristales	Guatemala
	A Full Supply Chain Optimization Model For The Location Of Forest Biomass -Based CHP Production Plants In Finland	Karthikeyan Natarajan	Finland

# // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

F-09A (98A	) Sustaining	<b>Bamboo And</b>	<b>Rattan Resources</b>
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Room:	155 F		
Organizers:	Jinhe Fu (International Network for Bamboo and Rattan, China), Yan Yu (International Center for Bamboo and Rattan, State Forestry Administration of China) & Jinzhong Xie (Chinese Academy of Forestry)		
Moderators:	Jinhe Fu & Emmanuel Appiah-Kubi (Forestry Research Institute of Gha	na)	
Description:	This session will focus on basic and applied research surrounding the cons	servation and sustainable utilization	on of bamboo and rattan resources.
	Bamboo As A New Alternative To Wood In The Philippines	Romulo Aggangan	Philippines
	Guadua Angustifolia Kunth In Costa Rica, Guidelines For Sustainable Management And Use	Elemer Briceño	Costa Rica
	Micro-Differences In Bamboo Commercialization In Ethiopia: Analysis Of Commercial Income And Value Chain Relationships	Tefera Belay Endalamaw	Ethiopia
	Bamboo As A Sustainable Biomass Energy	Jinhe Fu	China
	A Competitive Analysis Of Bamboo Products In The Global Market	Junqi Wu	China
	Field Performance Of Bamboo Propagules Produced Through Micropropagation	Yasodha Ramasamy	India

	Edible Bamboo Shoot Utilization- Problems And Prospects In India	Syam Viswanath	India
	Preparation And Properties Of Microfibrillated Cellulose (MFC) From Bamboo Processing Residues	Yan Yu	China
F-15 (259)	Applications Of Nanotechnology And Biotechnology In Fe	orest Products Research	1
Room:	250 B		
Organizers:	Jeff Morrell (Oregon State University, US) and Andrew Wong (Universiti	Malaysia Sarawak, Malaysia)	
Moderators:	Andrew Wong & Guangping Han (Northeast Forestry University, China)		
Description:	This session considers contributions from the fields of nanotechnology an	nd biotechnology in the develop	nent of innovative forest products.
	Applying Electrospinning Technology To Produce Lignin Fibers	Feng-Cheng Chang	China-Taipei
	Cellulose Nanoparticle-Reinforced Polymethylmethacrylate Composites: Effect Of Acid Hydrolysis Conditions	Guangping Han	China
	Effect Of Nano Materials On The Wearing Resistance And Hardness Of Water-Based Wood Coating	Ling Long	China
	Classification Of Agarwood Quality By Electronic Nose Technology	Nor Azah Mohamad Ali	Malaysia
	Novel Nanotechnology For Forest And Forest Product Protection	Yadong Qi	United States
	Life Cycle Assessment Of Cellulose Nanowhiskers Prepared With Ionic Liquid	Wei Xu	Germany

#### // FOREST HEALTH IN A CHANGING WORLD

G-06 (69) Mechanisms Of Tree Defense Across Forest Insect Feeding Guilds: Can A Comparative Approach Help Predict Responses To Climate Change?

Room:	250 C		
Organizers:	Barbara Bentz (U.S. Forest Service) & Ken Raffa (University of Wisconsi	n, USA)	
Moderators:	Barbara Bentz & Ken Raffa		
Description:	This session will compare defense mechanisms utilized by various host forest types, and environmental conditions.	t tree species across multiple i	nsect feeding guilds,
	Mining Spruce Genomes For Defense Genes And Functions	Joerg Bohlmann	Canada
	Mechanisms Of Aspen (Populus Tremuloides) Defense Against Gypsy Moths And Forest Tent Caterpillars	Richard Lindroth	United States
	Potential Role Of Alkaloids And Monoamines In Ash Resistance To Emerald Ash Borer	Caterina Villari	United States
	Mechanisms Of Tree Defense Against The Spruce Bark Beetle Ips Typographus	Paal Krokene	Norway
	Using Water- And Nutrient-Stress Phenotypes To Identify Ash Biomarkers Of Resistance To Emerald Ash Borer	David Showalter	United States
	Temperature Affects The Outcome Of Tritrophic Interactions Mediated By Tree Resistance Among Pine Sawflies And Willow Leaf Beetles	Christer Bjorkman	Sweden

	Trophic Responses To Climate Change – Host Species, Spruce Budworm, And Natural Enemies	Deepa Pureswaran	Canada
	Interactions Of Evolutionary Adaptation With Environmental Variables In Expression Of Ash Resistance Mechanisms To Emerald Ash Borer	Pierluigi Bonello	United States
G-14A (124	A) Impact And Monitoring Of Forest Pests And Pathogen	s In A Changing World	
Room:	150 D		
Organizers:	Maartje J. Klapwijk, Johanna Boberg (Swedish University of Agricultural Africa)	Sciences) & Jolanda Roux (FA	BI/University of Pretoria, South
Moderators:	Jolanda Roux		
Description:	This session will examine emerging pests and pathogens in relation to the context of forest resilience, and possibilities to monitor for critical c		nese disturbance agents within
	Tipping Points And Transformation In Forest Pest Ecology: The Challenge Of Rising Uncertainties Under Climate Change Catastrophe Theory	Barry Cooke	Canada
	Population Genetic Studies Reveal Complex Patterns Of Global Movement Of Pests And Pathogens In Pinus And Eucalyptus Plantations	Bernard Slippers	South Africa
	Myrtle Rust, Current And Future Impacts On Myrtaceous Diversity In Australia	Geoff Pegg	Australia
	Invasions Of Forest Insects And Diseases And Their Impacts On Regional Forest Dynamics In North America	Randall Morin	United States
	Contrasting Geographical Variation In Invasibility To Non-Native Forest Pests With Their Impacts	Andrew Liebhold	United States
	Developing National Biosecurity Charters: Safeguarding Forest And Agro-Ecosystems For Cultural And Functional Integrity	Stephen Williams	United States
	Sentinel Nurseries: An Early Warning System To Prevent Alien Forest Pathogens Invasion	Andrea Vannini	Italy
	Challenges And Prospects Of Forest Health Monitoring In Smallholder Community Plantations In Ghana	Paul P. Bosu	Ghana

# THURSDAY 9 OCTOBER - TECHNICAL SESSIONS 15:30-18:00

# // FORESTS FOR PEOPLE

# A-07 (105) The Social Outcomes Of Community Forestry: What Do We Know And How Do We Know It?

Room:	250 B
Organizers:	Susan Charnley (U.S. Forest Service) & Rebecca McLain (Portland State University, USA)
Moderators:	Susan Charnley
Description:	The session will critically evaluate the range of methods used to monitor and assess social benefits associated with community forestry projects, and identify the policy and institutional barriers – and potential solutions - to monitoring these benefits.
	The Social Outcomes Of Mexican Community Forestry: Community Forest Enterprises, Territorial Zoning, And Social CapitalDavid BrayUnited States

The Role Of Community Based Forest Management On The Livelihoods Of Traditional Timber Extractors In Brazilian Central Amazon	Philippe Waldhoff	Brazil
The Social Outcomes Of Community Forestry In The Steward Project Area Of West Africa: Methods, Results, Challenges	Susan Charnley	United States
Changing Scope Of Community-Based Forestry: Analysis Of 30 Years Of Community Forestry Impacts In Nepal	Ram Prasad Lamsal	Nepal
The Assessment Of Successful Community Forest Management In Thailand	Pasuta Sunthornhao	Thailand
Social Contracts And Community Forestry: How Can We Design Forest Policy And Tenure Arrangements To Generate Local Benefits?	Jordan Benner	Canada

## A-15 (103) The Future Of Recreation In Forests And Other Nature Areas

Room:	151 A		
Organizers:	Peter Fredman (Mid-Sweden University), Frank S. Jensen (University of Copenhagen, Denmark), Tuija Sievänen (Finnish Forest Research Institute) & David Edwards (Forest Research UK)		
Moderators:	Peter Fredman		
Description:	This session will look at outdoor recreation trends in different countries qualitative observations of new activities, places and contexts.	s around the world including ne	w approaches to monitoring, and
	Outdoor Recreation Future In Finland	Tuija Sievänen	Finland
	Inclusion Of Recreational Indicators In The National Forest Inventory – Experiences And Results From Denmark	Frank Søndergaard Jensen	Denmark
	A Web-Based Panel Approach To Outdoor Recreation Inventories – Experiences From Sweden	Peter Fredman	Sweden
	Using Existing Data In National Biodiversity Monitoring Program (Nils) To Create New Approaches For Monitoring Recreational Indicators	Marcus Hedblom	Sweden
	Forest Recreation Monitoring In Great Britain: Lessons Learned And Future Directions	Mariella Marzano	United Kingdom
	Understanding Perceptions Of Nature-Based Tourism Adaptive Capacity To Climate Change In Maine	Sandra De Urioste-Stone	United States
	Willingness To Travel To Avoid Conflict For Forest Recreation Planning	Fatemeh Bakhtiari	Denmark
	Assessment Of Tourism Impacts Towards Sustainable Co-Management Approach: A Case Study At Satchari National Park, Bangladesh	Md. Nazmus Sadath	Bangladesh
	Managing Forest Aesthetics In The Boreal Fringe	Anna Stens	Sweden

# A-24 (82) Smallholders And Forest Landscape Transitions: Locally Devised Development Strategies Of Tropical America

Room:	150 A
Organizers:	Benno Pokorny (University of Freiburg, Germany) & Wil de Jong (Kyoto University, Japan)
Moderators:	Benno Pokorny & Wil de Jong
Description:	This session will focus on the responses of peasant communities to the development contexts emerging in tropical America's forest landscapes, and the resulting economic, social and environmental outcomes.
	The Role Of Smallholders In A Green Economy: The Case Of Peru Alejandro Guarin Germany

	Frontier Landscapes In The Peruvian Amazon: Options By Smallholders Along The Forest Transition Curve	Valentina Robiglio	Peru
	Forest Management By Smallholders In Western Amazon: Towards More Integrated Approaches	Pablo Pacheco	Indonesia
	Traditional Perspectives On Ecology And Timber Extraction In A Bamboo-Dominated Forest: A Complementary Knowledge Base For Sustainable Management	Cara Rockwell	United States
	Opportunities And Perceptions Of Smallholders Regarding Their Potential To Contribute To Forest Landscape Transitions Under REDD+: Two Case Studies From Mexico	Margaret Skutsch	Mexico
	Employment And Income Generation In The Non-Timber Economic Activities In The Brazilian Amazon	Joaquim Bento de Souza Ferreira Filho	Brazil
	Collective Action For Forest Management: Institutional Challenges For Enhanced Social-Ecological Systems Of The "Environmental Agrarian Reform" In Anapu, Brazilian Transamazon	Roberto Porro	Brazil
Poster Preser	itations:		
	The Role Of Forests, Fallows And Fisheries In Household Income Generation And Flood Shock Coping In The Peruvian Amazon Floodplain	Jamie Cotta	Denmark
	Chilean Forest SME Projection	Hans Grosse	Chile
	Smallholder Land-Use Management In Bosawás Biosphere Reserve, Nicaragua's Agricultural Frontier	Lisa Hansen	Canada
	The Role Of South Brazilian Traditional Community Forests (Faxinais) In Atlantic Forest Conservation	Rosemeri Moro	Brazil
	Strengthening Sustainable Forest Management In The Colombian Amazon Oriented By In Situ Wood Transformation	César Polanco	Colombia
	New Roles Of Indigenous Peoples As Productive Actors Linked To The Forest Sector Of Bolivia	Walter Benjamín Rivera Coria	Bolivia

# A-28 (188) Ineffective International Forest Policy? The Role Of Forest Information, International Law And Politics

Room:	150 B		
Organizers:	Lukas Giessen (University of Goettingen, Germany), Georg Winkel (University of Goettingen, Germany)	ersity of Freiburg, Germany), C	hristoph Kleinn & Peter-Tobias
Moderators:	Lukas Giessen		
Description:	The session will include contributions from political science, international law, forest information and monitoring, and other disciplines providing innovative insights into factors influencing the effectiveness of international forest policy.		
	Horizontal And Vertical Fragmentation Of The International Forest Regime: (In)Effective For Who?	Lukas Giessen	Germany
	Millions Of Trees And Multiplicities Of Meaning: On The Framing Of 'Forests' In International Policy Discourse(s)	Scott Cettie	Germany
	National Forest Monitoring Programs As Data Providers To Forest Related Policy Processes	Christoph Kleinn	Germany
	A Comparative Study Of International Forest Policy Issues In Germany, Poland And Sweden	Jacqueline Logmani	Germany
	International Forest Policy: Who Is To Define The Objectives And The Evaluation Criteria?	Berit H Lindstad	Norway
	Building The Analytical Toolkit In International Forest Policy: Social Psychology And The Value-Belief-Norm Theory	Peter Edwards	Sweden

International Forest Issues, FLEGT And Potential Directions	Xin Li	China
Continued Evolution Of Australian Forest-Climate Change Policies	Richard Harper	Australia
Impact Analysis On China's Forestry Economic Policy From The Consensus Reached On The Forest Related Climate Conferences	Yukum Cao	China

# A-33 (220) Richer Economies, Better Environmental Policies? Analyzing The "Environmental Question" In Forest Policy In OECD Countries

Room:	150 C		
Organizers:	Georg Winkel (University of Freiburg, Germany), Cassandra Moseley (Ur Freiburg, Germany)	niversity of Oregon, USA) & Me	todi Sotirov (University of
Moderators:	Cassandra Moseley		
Description:	This session will assess environmental conflicts in forest policy and res arrangements and their effects) with an emphasis on OECD countries.	ponses by forest policy makers	s (e.g., policies and governance
	The Combat Against Illegal Logging: Are New Policies Game Changes Or Merely Symbolic?	Andreas Ottitsch	United Kingdom
	Forest Biomass And Biodiversity: Which Conflicts Arise From Contrary Environmental Goals?	Christina Schumann	Germany
	Changes In Environmental Governance And Illegal Logging Policies: The Case Of The European Union's Timber Regulation	Metodi Sotirov	Germany
	Payments For Forests: Characterizing Benefits And Governance In The Context Of Watershed Payments For Environmental Services In Europe	Alessandro Leonardi	Italy
	On How To Gain Discursive Agency In Environmental Conflicts: Exploring Policy Discourses On Illegal Logging	Sina Leipold	Germany
	Institutional Mimicry, Shifting Values And Diverging Policy Paths: Comparing Forest Environmental Policy Evolution In Germany And The United States	Georg Winkel	Germany

#### // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

B-02 (145) Urban Forest Diversity And Ecosystem Services			
Room:	150 G		
Organizers:	David Nowak (U.S. Forest Service) & Wesley Kocher (International Soci	ety of Arboriculture, USA)	
Moderators:	David Nowak		
Description:	This session will focus on species diversity in cities across the globe, ecosystem services provided by urban trees, how the urban forest composition and species diversity affects various ecosystem services and values, and how the urban forest composition and species diversity are and likely will change in the future.		
	Changes In Urban Forest Species Diversity And Its Impact On Ecosystem Services In The United States	David Nowak	United States
	Diversity Of Urban Tree Species Over The Globe And Their Links To Ecosystem Services	Jun Yang	China
	Failures Of Urban Forest Diversification	Robert Loeb	United States
	Can Urban Sites Support Increased Species Diversity?	Gary Watson	United States

Effects Of Residential Development On Forest Attributes	Bianca Eskelson	United States
Relative Abilities Of Six Urban Tree Species In Mitigating Elevated CO2	Zhu Ning	United States
Urban Forest Tree Species Diversity And Its Impact On Air Pollution Removal Capacity	Kamran Abdollahi	United States
Cultural And Social Ecosystem Services Of Urban Trees And Forests	Kathleen Wolf	United States

## B-08 Forest Regeneration: Challenges And Prospects

Room:	151 D		
Organizers:	Magnus Löf (Swedish University of Agricultural Sciences)		
Moderators:	Magnus Löf		
Description:	Regeneration is a key to perpetuating and improving our forests. This s six continents.	session includes highly inspirati	onal research examples from
	Experimental Restoration Ecology In Tropical Rain Forest Areas With Clearcutting And Abandonment, In Southeastern Brazil	Eliana Cardoso-Leite	Brazil
	Natural Regeneration In A Disturbed Tropical Seasonal Forest Fragment: Implications For Wildlife Habitat Restoration	Leonardo Augusto Martins	Brazil
	Effects Of Forest Fragmentation On The Successional Dynamics Of Secondary Forests In The San Juan-La Selva Biological Corridor, Costa Rica	Ricardo J. Santiago-García	Costa Rica
	Intervention Strategies For Community Driven Restoration Of An Iconic Canopy Species With Specific Regeneration Niche Requirements	Katinka Ruthrof	Australia
	Effects Of Canopy Cover And Browsing Damage On Aspen Regeneration Following MPB-Caused Lodgepole Pine Mortality Across North-Central Colorado, USA	Kristen Pelz	United States
	Current Pictures And Feasibility Of Quasi-Clearcutting In Japan	Keisuke Toyama	Japan
	Post-Fire Regeneration In Mountain Forests Of The Alps: Role Of Biological Legacies And Impact Of Restoration Strategies	Emanuele Lingua	Italy
	Regeneration Patterns And Persistence Of The Of The Rare Tree Species Sorbus Torminalis In Central European Oak Coppice Forests	Jörg Kunz	Germany
	Natural Regeneration Of Whitebark Pine: Factors Affecting Seedling Density	Sara Goeking	United States

## B-10 (219) How Does Biodiversity Help To Manage High-Value Timber Species, And Vice-Versa?

Room:	155 E
Organizers:	Sheila Ward (Mahogany for the Future, Puerto Rico/USA), Emmanuel Opuni Frimpong (Forest Research Institute of Ghana) & Nicholas Brokaw (University of Puerto Rico)
Moderators:	Nicholas Brokaw & Emmanuel Opuni-Frimpong
Description:	This session will explore how biodiversity positively impacts management of high-value timber species, (e.g., protection from pests and pathogens) and, conversely, how management for high-value species helps conserve biodiversity (e.g., how planted forests can conserve biodiversity).

	Enrichment Of Central African Logged Forests With High-Value Tree Species: Testing A New Approach In Degraded Forests	Jean-Louis Doucet	Belgium
	Relation Between Selected Indicators Of Forest Stand Diversity And Quality Of Timber Production In Even-Aged And Uneven-Aged Stands	Katarina Merganicova	Czech Republic
	Managing For High Value Timber And Biodiversity In The Congo Basin	Robert Nasi	Indonesia
	Effects Of Tree Species Diversity On Stem Quality – Plot And Tree Level Results From Six European Regions	Adam Benneter	Germany
	Restoration Of Degraded Lands With Mahogany In Mixed-Species Plantations Promotes Biodiversity And Conservation Of Valuable Timber Species	Emmanuel Opuni Frimpong	Ghana
	Combining High-Quality Timber Production, Biodiversity Conservation, And Forest Aesthetics: The Case Of Sorbus Species In Europe	JP Skovsgaard	Sweden
Poster Preser	tations:		
	Effects Of Overstory Species Diversity And Composition On Pest Damage To High Value Species And Understory Ant Diversity In Ghana	Paul P. Bosu	Ghana
	Steniscadia Poliophaea (Noctuidae) Is A Major Seedling Herbivore Of Big-Leaf Mahogany Trees In Amazonian Forests	Chris Free	United States
	Cedrela Montana In Tropical Montane Rain Forests Of South Ecuador: Key Species For Sustainable Management And Conservation Of Biodiversity Hotspots?	Sven Guenter	Costa Rica
	Restoration Of High-Value Broadleaved Forests In Southern Sweden: Synergistic Effects On Biodiversity And Economy	Magnus Löf	Sweden
	Can Monoculture Forest Plantation Harbor Biodiversity Similar To Naturally Regenerated Tropical Rainforest Ecosystems Over Time?	Jonathan Chukwujekwu Onyekwelu	Nigeria
	Growth And Productivity Of Khaya Grandifoliola In The Dry Semi- Deciduous Forest Of Ghana: A Comparison In Pure And In Diverse Species Stands	Emmanuel Opuni Frimpong	Ghana
	Single-Tree Management For High-Value Timber Species In A Mixed Conifer-Hardwood Forest In Northern Japan	Toshiaki Owari	Japan
	Comparison Of Species Composition And Stand Structure Between A Secondary Forest And A Mahogany Plantation On Mt. Makiling	Pil Sun Park	Republic of Korea
	Growth And Stem Quality Of Oak Trees Established In Cluster Plantings Respond Differently To Intra- And Interspecific Neighbourhood Competition	Somidh Saha	Germany

## B-15 (48) Forest Ecosystem Services Contributing To Agriculture

Room:	250 C		
Organizers:	Kimiko Okabe (Forestry and Forest Products Research Institute, Japan) & Ian Thompson (NRCan-Canadian Forest Service)		
Moderators:	Kimiko Okabe & Ian Thompson		
Description:	This session will examine the role of forests in sustaining agricultural livelihoods and the role of landscape management planning to address the social and economic drivers of deforestation in agricultural landscapes and optimize provision of forest ecosystem services to agricultural communities.		
	The Impact Of Retention Harvesting On Bee And Hoverfly Assemblages In The Boreal Forest Of Northern Alberta	Jared Amos	Canada
	Economic Valuation Of Pollination Service In Risaralda Colombian Coffee	Ana Milena Plata Fajardo	Brazil

Strengthening The Provision Of Ecosystem Services In Agricultural Landscapes In Costa Rica	Bastiaan Louman	Costa Rica
Ecosystem Services Of Native Trees: Experiences From Two Traditional Agroforestry Systems In Karnataka, Southern India	Dhanya Bhaskar	India
Agroforestry For Ecosystem Services: A North American Perspective	Shibu Jose	United States
Recovering The Biodiversity In Cacao Plantations In The South Of Maracaibo Lake, Mérida Venezuela	Néstor Gutierrez	Venezuela
Forest Edges As Sources Of Ecosystem Services For Landscape Agroecology	Marc Deconchat	France

#### B-17 (13) Salamanders: World Icons Of Aquatic Biodiversity In Forests

Room:	150 E		
Organizers:	Deanna Olson (U.S. Forest Service)		
Moderators:	Deanna Olson		
Description:	This session will present recent research on population ecology and re climate envelope models, and emerging genetic tools to gauge species or		
	Woodland Salamanders As Metrics Of Forest Ecosystem Recovery: A Case Study From California'S Redwoods	Hartwell Welsh	United States
	Utility Of Riparian Buffers To Retain Salamanders In And Along Streams Of US Pacific Northwest Moist Coniferous Forests	Deanna Olson	United States
	In-River Habitat Changes Following Riparian And Upland Deforestation Correlate With The Decline Of Ozark Hellbender Salamander Health And Populations	Max Nickerson	United States
	Population Structure And Shelter Characteristics Of Hellbender Salamanders In An Eastern Tennessee Stream	Kirsten Hecht-Kardasz	United States
	Relationships Of Salamanders With Downed Wood In Managed Forests Of The United States	Jessica Homyack	United States
	The Importance Of Forest Habitat Connectivity For Species Of Ambystomid Salamanders, Focusing On The Eastern Tiger Salamander	Valorie Titus	United States

## // FORESTS AND CLIMATE CHANGE

## C-06 (83) Boreal At Risk: Integrative Science As A Strong Foundation For Public Policy Development

Room:	250 D		
Organizers:	Deepa Pureswaran, Werner A. Kurz, Louis De Grandpré (NRCan-Canadian Forest Service) & Philip G. Comeau (University of Alberta, Canada)		
Moderators:	Deepa Pureswaran		
Description:	This session will present scientific findings and discuss policy implications of integrated research on global change and forest disturbances (fires, insects, and pathogens) affecting circumpolar boreal forest dynamics.		
	Boreal At Risk: From Boreal Science To Public Policy	Werner Kurz	Canada
	Report From The Global Frontlines: Does Climate Change During This Century Imperil All Historic Forests Across Planet Earth?	Craig D. Allen	United States
	Ecosystem Consequences Of The Northward Expansion Of The Eastern Spruce Budworm	Louis De Grandpre	Canada

Can Mixedwood Management Mitigate Climate Change Impacts On Spruce In Western Canada'S Boreal Forests?	Philip Comeau	Canada
Climate, Adaptation, And The Northward Range Expansion Of The Gypsy Moth	Dylan Parry	United States
Preventing Damage From A Southern Pest In Northern Forests: The Future Of The Southern Pine Beetle Prevention Program?	Kier Klepzig	United States
Understanding The Interactions Between Climate Change, Heart Rot And Carbon Sequestration In Populus Tremuloides In The Boreal Forest	Tod Ramsfield	Canada
How Much Dead Wood Is Enough In Canadian Forests? A Review Of The Science And Policy.	André Arsenault	Canada

## C-10 (232) Vegetation Zone Shifts In Response To Climate Change

Room:	250 E		
Organizers:	Constance Millar (U.S. Forest Service) & Pavel Cudlin (Global Change Research Centre, Academy of Sciences of the Czech Republic)		
Moderators:	Constance Millar & Pavel Cudlin		
Description:	The aim of this session is to compare model results with critically assert regions on soil, climatic, and ecologic conditions in response to climate		
	Can The Shift Of Vegetation Zones Be Thought Of An Efficient Adaptation Mechanism Or Just A Wishful Thinking?	Pavel Cudlin	Czech Republic
	Conservation And Management Of Western North American Trees In Complex Landscapes: Considering Glacial Refugia, Post-Glacial Migration, And The Velocity Of Climate Change	David Roberts	Canada
	Assessment Of Vulnerability And Impacts Of Climate Change On Tropical Forests In Papua New Guinea (PNG)	Eko Maiguo	Australia
	Climate Change Shifts Environmental Space And Limits Transferability Of Treeline Models	Aleksi Lehtonen	Finland
	Integrated Approach For Aleppo Pine Assisted Migration Toward Expected Climate Change In The Mediterranean Basin (Spain)	Antonio D Del Campo	Spain
	Siberian Potential Forest Types And Fire Load Projected From Ipcc Climates In The 21st Century	Nadezhda Tchebakova	Russian Federation
	Towards Climate-Smart Forest Landscape Management In The Neo- Tropics: Climate, Soil, And Spatial Effects On Vegetation In Three Altitudinal Gradients	Bryan Finegan	Costa Rica
	Global Tree Range Shifts Under Forecasts From Two Alternative GCMs Using Two Future Scenarios	William Hargrove	United States
	Contrasting Modes Of Response To Historic And Contemporary	Constance Millar	United States

## C-23A (107A) Forest Management For Adaptation To Climate Change

Room:	251 A-C
Organizers:	Rodney Keenan (The University of Melbourne, Australia), Carina Keskitalo (Umea University, Sweden), Kalame Fobissie (WWF Central Africa, Cameroon) & Guangyu Wang (University of British Columbia, Canada)
Moderators:	Rodney Keenan
Description:	This session will focus on options for adaptation to climate change in forest management from ecological, social, economic, and policy perspectives including decision tools for adaptation to climate change and best practice case studies in building adaptive capacity from tropical, temperate, and boreal biomes.

Climate Adaptation And Forest Management: The US Forest Service Perspective	David Cleaves	United States
The Role Of Forestry In National Climate Change Adaptation Policy: Cases From Sweden, Germany, France, And Italy	Carina Keskitalo	Sweden
Climateap And Its Use In Projecting The Climate Niche And Productivity Of Forest Trees In Future Climates In Asia Pacific	Tongli Wang	Canada
Climate Change Impacts And Adaptation In The Canadian Forest Sector	Mark Johnston	Canada
Climate Change Impacts In The Temperate Forests Of Southeast Australia: Can Forest Management Reduce Vulnerabilities?	Craig Nitschke	Australia
Community Forestry As An Approach To Climate Change Adaptation	Regan Pairojmahakij	Thailand
Adaptation Of Planted Forests To Climate Change: From Global To Local Approaches	Jean-Michel Carnus	France

## C-25 (222) Forest Management Options To Tackle Climate Change

Room:	250 F		
Organizers:	Hubert Hasenauer (University of Natural Resources and Life Sciences, Netherlands) & Jean-Luc Peyron (Ecofor, France)	Austria), Frits G. Mohren (Unive	rsity of Wageningen, the
Moderators:	Hubert Hasenauer		
Description:	The session will discuss forest management strategies in mitigating po carbon sequestration issues, fossil fuel substitution potentials, and life	-	including adaptation options,
	Multiple-Use Forest Management Strategies For Mitigation And Adaptation To Climate Change: The EU-FORMIT Project	Godefridus M.J. (Frits) Mohren	Netherlands
	Assessing Forest Productivity: Terrestrial Forest Inventory Versus MODIS Satellite Driven Estimates	Hubert Hasenauer	Austria
	Enhancing Forest Carbon Mitigation Potentials By Forest Management And Timber Utilization	Michael Koehl	Germany
	Approaches To Evaluate The Carbon Neutrality Of The Forest Value Chain	Bart Muys	Belgium
	First Signs Of Carbon Sink Saturation In European Forest Biomass: Options For Management	Gert-Jan Nabuurs	Netherlands
	Future Of Russian Forests: A Need Of Transformative Adaptation?	Anatoly Shvidenko	Austria
	Combining Forest Models With LCA For Optimization Of The Forest's GHG Mitigation Effect	Ellen Soldal	Norway
	Synergies And Trade-Offs Between Forest Adaptation And Mitigation	Jean-Luc Peyron	France

#### // FORESTS AND WATER INTERACTIONS

## D-02B (80B) Conceptual Frames And Research Strategies For Integrated Studies Of Adaptation To Drought

Room:	150 F
Organizers:	Philippe Rozenberg (National Institute for Environmental and Agricultural Science and Research, France), Anne Griebel & Gregor Sanders (University of Melbourne, Australia)
Moderators:	Anne Griebel

Description:	The session will focus on ecophysiological, genetic, and dendrochronological studies that shed light on xylem adaptive potential to drought in experimental trials as well as in natural populations, including studies of population variation within species as affected by climatic conditions.		
	Defense Allocation Patterns Are Important To The Drought-Mortality Risk Of A Semi-Arid Conifer	Harald Bugmann	Switzerland
	Potassium And Sodium Supply Effects On The Adjustments To Water Deficit Of Eucalyptus Grandis Trees: Insights From A Throughfall Exclusion Experiment In Brazil	Jean-Paul Laclau	France
	Coordinated Adjustments In Xylem Hydraulic Safety, Efficiency And Capacitance Across Climatic Gradients And Axial Gradients Within Trees	Frederick Meinzer	United States
	Identifying Drought Resistant Lodgepole Pine Genotypes For A Changing Climate: Growth And Hydraulic Response Observed In Genetic Field Trials	David Montwé	Germany
	Seedling Establishment Limited By Water Availability: Understanding Spatial And Temporal Limitations To Maximize Outplanting Success	Jeremiah Pinto	United States
	Oak Forest Decline In Mediterranean Environment: Understanding The Linkage Of Climatic Drivers To Physiological And Dendro- Anatomical Variations	Francesco Ripullone	Italy
	Do Leaf Adaptations To Low Water Potential Influence Isohydric Or Anisohydric Responses In A Widely Distributed Genus?	Gregor Sanders	Australia
	Tolerance Of Eucalyptus Clones To Hydric, Thermal, And Biotic Stress Across Sites, Stockings, And Rain-Exclusion Regimes	Jose Stape	United States

## D-09 (255) Ecology And Management Of Coastal Forests And Mangroves

Room:	151 B		
Organizers:	Ariel E. Lugo (U.S. Forest Service)		
Moderators:	Ariel E. Lugo		
Description:	This session will focus on current research on mangroves and other co marine and estuarine biodiversity and provision other ecosystem servic		eir importance as habitats for
	Monitoring Forest Change Analyzing Change In Resistant Z-Score Using Landsat Data: Case Studies From Bangladesh And Montana	Tanushree Biswas	United States
	Botanical Surveys In Awat-Awat Mangrove Forest, Sarawak, Malaysia	Seca Gandaseca	Malaysia
	Species And Functional Diversity Of Mangrove Forest For Conservation Planning Of Alibijaban Wilderness Island In San Andres Quezon, Philippines	Nelson Manguiat Pampolina	Philippines
	Impact Of Climate Change On The Nypa Palm Of Sundarbans	Md. Mizanur Rahman	Bangladesh
	Effects Of Climate Change On Coastal Forest Ecosystems And Marine Environment Of Cameroon	Emmanuel Suka	Cameroon
	Local Mangrove Forest Management Of Cyclone-Affected Areas In Myanmar	Thinn Thinn	Japan

#### // FOREST BIOMASS AND BIOENERGY

E-04 (137B	) Forest Biomass Supply Chains: Domestic Fuelwood An	d Biomass Heating	
Room:	250 A		
Organizers:	Nate Anderson (U.S. Forest Service), Gustaf Egnel (Swedish University o University, USA)	of Agricultural Sciences) & Woo	dam Chung (Oregon State
Moderators:	Nate Anderson		
Description:	Emphasizing case studies from Africa, Europe, and the Americas; this session is focused on the economic, social, and environmental aspects of forest biomass used for household heating, cooking, charcoal production, and other domestic end-use applications.		
	Use And Sources Of Domestic Firewood In Wales, UK	Simon K. Atherton	United Kingdom
	Evaluation Of Forest Biomass As A Substitute For Firewood As An Energy Source In Costa Rican Households	Jean Morales	Costa Rica
	Wood-Energy In Cameroon: The Overlooked Contribution To The National Economy	Richard Eba'a Atyi	Cameroon
	Who Gets What: Analysis Of Wood Fuel Value Chain In Ghana	Isaac Nunoo	Ghana
	Profitability Analysis Of Fuelwood Marketing In Ibadan, Nigeria	Oluseyi Olugbire	Nigeria
	Decision Support For Sustainable, Community-Based, Wood Biomass Energy For Heating	Cecilia Danks	United States
	Greenhouse Gases Accounting For Producing And Utilization Of Woody Biomass For Heat Energy Purpose	Maryam Bakhshi	Iran
	Biomass Energy Supply Chains In Europe: Are We Burning The House We Live In?	Andreas Ottitsch	United Kingdom
	Evaluating The Greenhouse Gas Mitigation Potential And Cost- Competitiveness Of Forest Bioenergy Systems In Northeastern Ontario	CT Smith	Canada

## // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

## F-01 (87) Innovation In The Forest Sector: Maximizing The Sector's Competitiveness

Room:	151 G		
Organizers:	Eric Hansen (Oregon State University, USA), Erlend Nybakk, (Norwegian Forest and Landscape Institute), Lyndall Bull (Australian National University) & Gehard Weiss (University of Natural Resources and Life Sciences, Austria)		
Moderators:	Rajat Panwar, University of British Columbia, Canada (rpanwar@northland.edu)		
Description:	This session is designed to catalog the state-of-the-art in forest sector innovation research covering a diverse set of industry sectors including nature-based tourism, ecosystem services, wood manufacturing, and wood construction.		
	Innovation In Forest Management For New Forest Owner Types: A Literature Review	Erlend Nybakk	Norway
	Analysing Multi-Product Economic Efficiency Relative To Forest Ownership Types In Spain: Implications For Management And Policy.	Sonia Quiroga	Spain
	Environmentally Conscious Forest Landowners As Forerunners For Multiple Uses Of Forests?	Liina Häyrinen	Finland
	Renewing Wood Product Value Chains And Timber Procurement Solutions	Henrik Heräjärvi	Finland

Production Planning At A Sawmill – Comparing Optimization Models With Simple Heuristics For The Short Term Multi-Period Production Problem	Maria Anna Huka	Austria
"Awareness, Perceptions And Willingness To Adopt CLT In The United States"	Maria Fernanda Laguarda Mallo	United States
Innovation Diffusion Of Biorefinery Materials And Chemicals	Anders Roos	Sweden
Factors Influencing Architects In Specifying Eco-Labeled Wood Products In The U.S. Residential Construction Industry.	Tait Bowers	United States

## F-09B (98B) Sustaining Bamboo And Rattan Resources

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Room:	155 F		
Organizers:	Jinhe Fu (International Network for Bamboo and Rattan, China), Yan Yu (International Center for Bamboo and Rattan, State Forestry Administration of China) & Jinzhong Xie (Chinese Academy of Forestry)		
Moderators:	Jinhe Fu & Emmanuel Appiah-Kubi (Forestry Research Institute of Ghana)		
Description:	This session will focus on basic and applied research surrounding the cons	servation and sustainable utilization	on of bamboo and rattan resources.
	Bamboo Resources For Greener Future: Assessment Of Species Characteristics For Furniture Manufacturing And Green Building In Ghana	Emmanuel Appiah-Kubi	Ghana
	Harnessing Diversity Of Rattans And Its Myriads Of Benefits For Green Economy And Environment	Aida Lapis	Philippines
	Effectiveness Assessment Of Forest Tenure Reform On The Resource Cultivation And Institutional Innovation On Livelihood Development In Bamboo Areas: Case Studies In China And India	Li Zhiyong	China
Poster Presentations:			
	Profiling Of Aroma Compounds Released From Four Major Bamboo Shoots Of High Economic Value In Taiwan	Min-Jie Chung	China-Taipei
	Study On Novel Dyeing Methods For Green-Color Preservation Of Three Bamboo Culms And Their Colorfastness	Chia-Ju Lee	China-Taipei
	Comparative Anatomy Of Developmental Moso Bamboo Culms	Zhiqiang Li	China
	Surveillance Of Bamboos Species In An Experimental Plantation In Southern Brazil	Adalberto Novaes	Brazil
	Vegetative Propagation Of Two Bamboo Species In Southern Brazil	Adalberto Novaes	Brazil
	Study On The Soil Nutrients Limiting Factors In Bambusa Rigida Forest Land	Shuping Tu	China
	Harvesting And Coppice Management Of Beta Vulgaris (Bamboo) In Protected And Unprotected Areas	Edward D. Wiafe	Ghana

## F-12 (41) Intensive Or Ecosystem-Based Forest Management – Impact On Yield, Wood Quality, And Economic Return?

Room:	151 C
Organizers:	Pekka Saranpää (Finnish Forest Research Institute), Alexis Achim (Laval University, Canada), Robert Deal (U.S. Forest Service) & John Moore (Scion, New Zealand)
Moderators:	Pekka Saranpää & Alexis Achim

Description:	Presentations in this session will feature current research relevant to silvicultural planning and management to enhance the resistance and resilience of managed forests to global change, while maintaining or improving productivity and profitability.		
	Lumber Value From Selection Cuttings In Uneven-Aged Northern Hardwood Forests	Alexis Achim	Canada
	Balancing Landowner Objectives: Society's Desire For Ecological Sustainability, And Wood Quality In The United States	Jamie Barbour	United States
	Value Recovery In Intensively Managed Second-Growth Forests: Is All Volume Created Equal?	Cosmin Filipescu	Canada
	Profitability Of Uneven-Aged Forest Harvesting Practices: Learning From Central India	Bharat Gotame	Nepal
	The Economics Of Product Quantity vs Product Quality In Great Britain'S Forest Resource	Paul McLean	United Kingdom
	Douglas Fir Roundwood Quality – Impact Of Growth Space On Juvenile Development, Wood Density And Branch Development For Future Timber Quality	Udo H. Sauter	Germany
	Wood Quality Of Uneven-Aged Norway Spruce Sawn Goods: A Case Study In Southern Finland	Pekka Saranpää	Finland

## // FOREST HEALTH IN A CHANGING WORLD

## G-03 (85) Critical Loads For Nutritional Nitrogen Deposition: Progress And Problems

Room:	151 E		
Organizers:	Sarah Jovan, Andrzej Bytnerowicz & Mark Fenn (U.S. Forest Service)		
Moderators:	Sarah Jovan & Andrzej Bytnerowicz		
Description:	The session is focused on the concept of Critical Loads as a managem science-based air quality policy that protects ecosystem health.	ent tool for air pollutant loading	g and the development of
	Atmospheric Nitrogen Deposition And Critical Loads For Holm Oak Forests In Spain	Rocío Alonso	Spain
	Using Nitrogen Critical Loads To Develop Research Priorities, Ecosystem Condition Assessments, And Restoration Strategies For U.S. National Park Service Lands	Tamara Blett	United States
	Nitrogen Flux Measurements: Toward Ecosystem Effects And Critical Load Development	Mark Fenn	United States
	Lichen-Based Critical Loads Of Nitrogen For Forested Eco-Regions Of The United States	Linda Geiser	United States
	Evaluating Effects Of Atmospheric N And S Deposition And Climate On Forest Ecosystem Services Based On The Critical Loads Paradigm	Todd McDonnell	United States
	Critical Loads For Nitrogen And Sulfur Atmospheric Deposition In The Great Smoky Mountains National Park, USA	Habibollah Fakhraei	United States
	Critical Load Of Atmospheric Nitrogen Deposition In French Forests: Modelling Soil And Vegetation Response In A Context Of Climate Change	Simon Rizzetto	France
	Does Low-Dose N Addition Enhance Growth In Fertile Picea Abies Forests?	Ulf Sikström	Sweden
	Critical Loads And Climate Change In The Polish-Saxon Border Region	Thomas Scheuschner	Germany

G-14B (124B) Impact And Monitoring Of Forest Pests And Pathogens In A Changing
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Room:	150 D			
Organizers:	Maartje J. Klapwijk, Johanna Boberg (Swedish University of Agricultural Sciences) & Jolanda Roux (FABI/University of Pretoria, South Africa)			
Moderators:	Jan Stenlid (Swedish University of Agricultural Sciences)			
Description:	This session will examine emerging pests and pathogens in relation to global change, the impact of these disturbance agents within the context of forest resilience and possibilities to monitor for critical changes.			
	Why Dose A Species Become A Pest? Comparison Of ThreeOlle AnderbrantSwedenPhysokermes SpeciesOlle AnderbrantSweden			
	Global Climate Change And Gall Rust Disease Epidemic On Falcataria Moluccana In Indonesia And Malaysia	Sri Rahayu	Indonesia	
	Reconstructing The Routes Of Invasion And Genetic Diversity Of Thaumastocoris Peregrinus (Hemiptera: Thaumastocoridae) Using Microsatellite Markers	Eston Mutitu	Kenya	
	Monitoring Population Densities Of Ips Typographus L. Using Pheromone Traps And Trapping Trees	Minna Lyytikäinen	Finland	
	454 Pyrosequencing Reveals Important Eucalyptus Pathogens On Seed And Seed-Capsules	Jolanda Roux	South Africa	
Poster Presei	oster Presentations:			
	Physokermes Inopinatus, A New Forest Pest Due To Changing Climate?	Olle Anderbrant	Sweden	
	Monitoring Air, Water And Insect-Borne Invasive Forest Pathogens In Sweden	Johanna Boberg	Sweden	
	Neonectria Canker On True Fir In Western USA	Gary Chastagner	United States	
	Monitoring Of Sesia Apiformis Infestations In Poplar Plantations At Different Spatial Scales	Julio Javier Diez-Casero	Spain	
	Dead Stands From The Space: Experiences With Synergized Multi- Date Medium Resolution Imagery To Describe Damages Caused By European Bark Beetle	Hooman Latifi	Germany	
	Detection And Epidemiology Of Invasive Fungal Pathogens By Real Time Quantitative PCR	Nicola Luchi	Italy	
	Monitoring Bark And Ambrosia Beetles In Commercial Forestry In Uruguay	Gonzalo Martinez	Uruguay	
	Mycosphaerella Leaf Disease And Its Impact On Eucalyptus Plantations In Uruguay	Carlos Pérez	Uruguay	
	The Swiss Needle Cast Foliage Disease Epidemic On The Northwestern Coast Of The US.	Dave Shaw	United States	

# Daily Scientific Program FRIDAY 10 OCTOBER

## NOTES

## FRIDAY 10 OCTOBER - PLENARY SESSION 11:00-12:00

#### Plenary 4: Carol J.P. Colfer: The People And Forests Trajectory- 1994-2014 And Beyond

Ballroom Room: Session Daniela Kleinschmidt Chair: Much progress on the people-forest nexus has occurred within the forestry world. Forestry researchers are taking serious notice of the impacts of forests on people, and people on forests. Encouraging examples include attention to human well-being, attempts to work collaboratively with communities and their subgroups, a focus on power relations (devolution, ethnic and gender studies), and attention to people's knowledge about forests. More controversial topics like swidden agriculture, human health, nutrition, human rights and population have also been addressed. But much remains to be done. We know how dependent people living in forests are upon them and that their influence can be positive or negative. The desire to maximize the positive suggests the need for a greater focus on equity. Description: The female half of forest populations, for example, still tends to be invisible. Yet studies focused on women alone have proven difficult to integrate into forestry. To activate all human capabilities, we need to better understand the relations between men and women as they interact with each other and with the forest. This will require courageously addressing: a) sensitive issues like population, the division of labor within households, religious beliefs and associated ideals, and violence against women; and b) methodologically complex ones like values, norms, and other powerful but intangible cultural topics. The secret to our ultimate success will be effectively integrating the many disciplines involved so that we can expand our understanding of the forests - people nexus.

# FRIDAY 10 OCTOBER - SUB-PLENARY SESSIONS 13:30-15:00

SP-13 Forest Biodiversity, Ecosystem Services And Human Well-Being – Harnessing Biodiversity For Adaptation To Global Change				
Room:	155 A-C			
Organizers:	Bryan Finegan (CATIE, Costa Rica), Robert Jandl (Research and Training Centre f Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute), & JP Skovs			
Moderators:	Bryan Finegan			
Description:	The session will explore the current state of knowledge regarding the role of taxe forest ecosystem services, the trade-offs often required for successful multi-func services, and associated management and policy challenges including governan	ctional management of forest		
	Biodiversity, Ecosystem Services And Resistance To Invasion Of Planted Forests	Eckehard Brockerhoff	New Zealand	
	On Beyond S: Why Other Metrics Of Biodiversity Can Tell More About Ecosystem Services Than Species Richness	David Hooper	United States	
	Forest Landscape Heterogeneity And Local Plant Species Richness Effects: A Proxy For Biodiversity Monitoring	Sandra Luque	United Kingdom	
	Effective Territorial Governance For The Maintenance And Restoration Of Ecosystem Services: Analysis Of Experiences	Ronnie De Camino	Costa Rica	
SP-14 Energy From Trees: Technology, Opportunities, And Challenges				
Room:	155 E			
Organizers:	Woodam Chung (Oregon State University, USA) & Hans Heinimann (Swiss Federa	al Institute of Technology in Zu	urich, Switzerland)	
Moderators:	Woodam Chung			

XXIV International Union of Forest Research Organizations World Congress // 76

Description:	This session will introduce the state-of-the-art technologies for forest biomass production and utilization for bioenergy, and discuss the technical, logistical, financial, social and environmental challenges and opportunities of biomass utilization for energy in the rapidly advancing bioeconomy.		
	Feedstock Production Practices And Challenges In Sweden	Gustaf Egnell	Sweden
	Economics And Logistics Of Forest Biomass Supply: Integrated Supply Chain Research To Reduce Costs, Increase Value And Quantify Uncertainty	Nathaniel Anderson	United States
	The Global Footprint Of Traditional Woodfuels: A Spatially Explicit Assessment Of Supply, Demand, And Sustainability	Robert Bailis	United States
	Social Processes, Challenges And Opportunities For Forest Bioenergy Harvesting	Peter Edwards	Sweden
	Environmental Impacts And Site Sustainability Of Biomass-For-Bioenergy Harvest Operations	Deborah Page-Dumroese	United States
	Life-Cycle Assessment LCA Of Biomass Fuels - State And Perspectives	Hans R. Heinimann	Switzerland

## SP-15 Historical Responses Of Research To Global Forestry Issues

Room:	251 A-C		
Organizers:	Jeffery Burley (University of Oxford, UK)		
Moderators:	Niels Elers Koch		
Description:	The session will comprise a leading paper reviewing the changes in the forestry four IUFRO Past-Presidents (1990-2010) showing how the research community		,
	Global Forest Challenges Over The Past Quarter Century	Juergen Blaser	Switzerland
	Research Responses To Major Forestry And Forest Products Challenges Over The Past Quarter Century	Jeffery Burley	United Kingdom
	Historical Responses Of Research To Global Forestry Challenges, 1991 – 1995: Forestry Research From A Tropical Perspective Forestry Research From A Tropical Perspective	Salleh Mohd. Nor	Malaysia
	Historical Responses Of Research To Global Forestry Challenges, 1996 – 2000: Into The Third Millennium	Jeffery Burley	United Kingdom
	Historical Responses Of Research To Global Forestry Challenges, 2001 – 2005: Contributions To International And National Policy Processes	Risto Seppälä	Finland
	Historical Responses Of Research To Global Forestry Challenges, 2006 – 2010: Continuity And Strengthening	Don Koo Lee	Republic of Korea

## SP-16 Triumphs, Tribulations And Transitions – The Graduate Research Experience From The Student IUFRO Award Winners

Room:	155 F
Organizers:	Shirong Liu (Chinese Academy of Forestry) & Lisa Hansen (IFSA/University of British Columbia, Canada)
Moderators:	Lisa Hansen & Shirong Liu
Description:	This session will provide a venue for the winners of the IUFRO Outstanding Doctoral Research Award (ODRA) and IUFRO Student Award for Excellence in Forest Sciences (ISA) to present short overviews of their personal and intellectual triumphs and tribulations encountered while conducting their winning research projects and to share some insight on their future professional directions they now envision for themselves.

ISA Awardees:	Tolupe Daramola (USA/Nigeria):Division 1
	Mika Yoshida (Japan): Division 3
	Julius B. Adewopo (USA/Nigeria): Division 5
	Sharif Ahmed Mukul (Bangladesh): Division 6
	Md. Mohital Hosain (Bangladesh): Division 8
	Ivana Guduric Živojinovi (Serbia): Division 9
ODRA Awardees:	Jan R. Bannister (Chile/Germany): Division 1
	César Pérez Cruzado (Spain): Division 2
	Puneet Dwivedi (USA/India): Division 3
	Susana Barreiro (Portugal): Division 4
	Sik Huai-Shing (Malaysia): Division 5
	Sandra Rodríguez-Pineros (Mexico): Division 6
	ShuaiFei Chen (China): Division 7
	Zhun Mao (China): Division 8
	Eli Sagor (USA): Division 9
	Sik Huai-Shing (Malaysia): Division 5         Sandra Rodríguez-Pineros (Mexico): Division 6         ShuaiFei Chen (China): Division 7         Zhun Mao (China): Division 8

# FRIDAY 10 OCTOBER - TECHNICAL SESSIONS 08:00-10:30

## // FORESTS FOR PEOPLE

## A-08A (108A) Small-Scale And Community Forestry For People, Biodiversity And Ecosystem Services

Room:	250 A		
Organizers:	John Herbohn (University of the Sunshine Coast, Australia), Gun Lidestav (Swedish Ur Commission), Jessica Leahy (University of Maine, USA) & Christoph Hartebrodt (Fores	, ,	
Moderators:	Christoph Hartebrodt		
Description:	This session will address the complex and multidimensional nature of small-scal economic, institutional and policy issues; uneven-aged and mixed species silvicu ownership in change and its significance for management and policy; and the lin landholders.	Ilture of small-scale and com	munity forestry; forest land
	Designing Mixed Species Systems For Community And Smallholder Forestry In The Tropics To Achieve Multiple Objectives	John Herbohn	Australia
	Forest Land Ownership Changes In Europe: Significance For Management And Policy	Gun Lidestav	Sweden

The Association Of Forest Owners After The Restitution Process In The Czech Republic	Vilem Jarsky	Czech Republic
Factors Influencing The Level Of Participation Of Community Forest Association Members In Participatory Forest Management: A Case Study Of Kenya	Josephine Musyoki	Kenya
The Present State And Prospects Of Private Forest Owners' Associations	Špela Pezdevšek Malovrh	Slovenia
A Culturally Focused Life Cycle Sustainability Assessment: Analysis Of Forestry Value Chain Options With Māori Land Owners	Stefania Pizzirani	New Zealand
Factors Influencing Choice Of Forest Management Strategy Among Small-Scale Private Forest Owners In Sweden	Jeannette Eggers	Sweden

## A-16 (28) Ethics And Values In Relation To Forest, Wildlife And Recreation Management

Room:	150 B		
Organizers:	Christian Gamborg & Frank S. Jensen (University of Copenhagen, Denmark)		
Moderators:	Christian Gamborg		
Description:	This session will explore approaches for handling human-wildlife relations as we recreation management.	ell as conflict situations arising	g in forest, wildlife and
	Fires, Forests And Conflict In Times Of Rapid Environmental Change In Sweden And Australia	Katarina Eckerberg	Sweden
	A Bottom Up Approach To Criteria And Indicators: Values And Cues In Public Evaluations Of Forest Management In Australia	Rebecca Ford	Australia
	Effectiveness Of Integrated Conservation And Development Projects Around Central Indian Tiger Reserves	Biljana Macura	Italy
	Triad Stimulus Nur (Nature, Use, Religion) Pro-Conservation For Sustainable Forest Management In Indonesia	Ellyn Kathalina Damayanti	Indonesia
	Conflictive Interactions Between Forestry Traditional Knowledge Of Dong Minority And Modern Policy Interventions In S Village: An Actor-Oriented Perspective	Minghui Zhang	China
	Negotiating Indigenous Collaboration In Forestry In Quebec, Canada: Finding Pathways Through Multiple Processes And Actors	Stephen Wyatt	Canada
	The Importance Of The Social And Cultural Dimensions Of Wildmeat In Periurban Indigenous Communities In Leticia (Colombia)	Blanca Yague	Colombia
	Recreational Hunting – A Comparative Study Of Attitudes To Rear And Release Among Danish Hunters, Land Owners And The General Public	Christian Gamborg	Denmark

## A-22 (66) Forests Under Pressure: Prerequisite Conditions For Forest-Related Sustainable Development

Room:	250 B		
Organizers:	Pia Katila (Finnish Forest Research Institute)		
Moderators:	Markku Kanninen (University of Helsinki)		
Description:	This session will present the main findings of the IUFRO-WFSE book "Forest und on 'prerequisite conditions' that foster progress towards sustainable forest mana		
	Introduction To The WFSE-Project And The New Book Forests Under Pressure: Local Responses To Global Issues	Pia Katila	Finland
	Community-Based Forest Management In Quintana Roo, Mexico	Jose Antonio Sierra Huelsz	Mexico

Forest Citizenship In Acre, Brazil	Marianne Schmink	United States
Khasi Responses To Forest Pressures: A Community REDD + Project From Northeast India	Mark Poffenberger	United States
Community Rights And Participation In The Face Of New Global Interests In Forests And Lands – The Case Of Mozambique	Almeida Sitoe	Mozambique
Prerequisite Conditions For Sustainable Forest Management: Synthesis Of The Case Studies	Glenn Galloway	United States
Forests Under Pressure: Possible Future Pathways	Wil de Jong	Japan

## A-29 (136) The Knowledge That Counts – Analyzing Science Policy Interactions In Forest Policy

Room:	150 C		
Organizers:	Michael Böcher (Georg-August-University Goettingen, Germany) & Georg Winkel	(University of Freiburg, Germ	any)
Moderators	Michael Böcher & Georg Winkel		
Description	This session will focus on the interactions between scientific research and fores prospects for scientific knowledge transfer in forest policy and assessment of lo		
	The Riu-Model As Framework For Analyzing Science Policy Interactions In Environmental And Forest Policy	Michael Böcher	Germany
	Forest Biodiversity In Climate Change Adaptation; What Is The Role Of IPBES And IPCC?	Yusuf Samsudin	Indonesia
	Publicly-Funded Forest Research In Canada: Discriminating Between Strategic, Tactical And Technical Policy Relevance	Gordon Hickey	Canada
	Application Of Bayesian Belief Networks To Science Based Policy Development	Mike Brienesse	Canada
	Is Forest Research In Accord With The Strategic Challenges Of The Forest Sector? A Case Study On Finland.	Risto Seppälä	Finland
	Actionable Knowledge For Forest Owners Associations In Slovakia	Jaroslav Šálka	Slovakia
	Governing Uncertainty In Forest Management. Forest Counselors' Handling Of Risk And Uncertainty After Extreme Events	Rolf Lidskog	Sweden
	Under The Veil Of Science: A History Of State Management Of Ghana'S High Forest Zone	Christian Pilegaard Hansen	Denmark

## A-37A (227A) Knowledge Exchange And Communication Of Forest Research For Human And Community Well-Being

Room:	150 A		
Organizers:	Cynthia Miner (U.S. Forest Service), Jurij Begus (Slovenia Forest Service), Guy S Real (National Forestry Corporation, Chile)	mith (NRCan- Canadian Wood	d Fibre Centre) & Alejandra
Moderators:	Cynthia Miner & James Johnson (Oregon State University)		
Description:	The session will focus on the processes used to implement research findings in policies, programs and practices in maintaining and enhancing human health and community well-being, with an emphasis on the human dimensions of sharing and using knowledge.		
	Biodiversity, And Their Communication Gaps In The Mass Media: Experience From The CBD COP10 And Beyond	Ryo Kohsaka	Japan
	Science In Forest Policy Program And Political Discussion: The Example Of Bangladeshi Forest Policy Program And Print Media Discourse.	Md. Nazmus Sadath	Bangladesh

	Exploring The Science – Stakeholder Interface In Climate Change Adaptation Research Within Swedish Forestry	Åsa Gerger Swartling	Sweden
	Differences In Biodiversity Assessment Strategies Between Experts And Novices In Ecology In Logged Forests.	Johan Pihel	Sweden
	Cartografía Social Para La Determinación De Dinámicas Ambientales En Contextos Rurales. Caso Cuenca Río Grande, Departamento De Antioquia, Colombia.	Connie Paola Lopez Gomez	Colombia
	Forest As A Place For Health, Recreation And Learning - Case Studies	Milan Sarvas	Slovakia
	Assessment Of The Impact Of Forestry Research Institute Of Nigeria Activities On The Neighboring Communities	Adebayo John Julius	Nigeria
Poster Prese	ntations:		
	Community Wood Energy Handbook And Computer App	Dennis R Becker	United States
	Participatory Approach Potentials In Adoption Of Agronomic, Land And Water Management Technologies In Semi Arid Areas Of Tanzania	Pilly Kagosi	Tanzania
	Managina Kanada I. A Descent Organization The Organ Of Kanada Farada		
	Managing Knowledge In A Research Organisation: The Case Of Kenya Forestry Research Institute	Sheila Mbiru	Kenya
		Sheila Mbiru João HN Palma	Kenya Portugal
	Research Institute Forest Models Dissemination And Knowledge Transfer On Cork Oak		
	Research Institute Forest Models Dissemination And Knowledge Transfer On Cork Oak Based Ecosystems: Bridging The Gap Between Research And Practice	João HN Palma	Portugal

## // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

#### B-03 (118) Providing Ecosystem Services Under Climate Change: Community Of Practice Of Forest Decision Support Systems

Room:	150 D		
Organizers:	Harald Vacik (University of Natural Resources and Life Sciences, Austria), Jose Borges & Jordi Garcia-Gonzalo (Technical University of Lisbon, Portugal) & Lujsk-Ola Eriksson (Swedish) University of Agricultural Sciences)		
Moderators:	Harald Vacik & Jose Borges		
Description:	The session will explore how Decision Support Systems (DSS) are currently design services under climate change, including case studies and overviews on models		
	Community Of Practice Of Forest Management Decision Support Systems And Lessons Learned For DSS Development And Application	Harald Vacik	Austria
	Design Features Behind The Success Of The Ecosystem Management Decision Support System	Keith Reynolds	United States
	Supporting Participatory Land Use Planning Processes And Decisions – The Giscame Platform	Christine Fürst	Germany
	Studying Trade-Offs Between Biodiversity And Ecosystem Services: An Integrated Modeling Approach Based On Uneven-Aged Mountain Forests.	Valentine Lafond	France
	Ecosystem Services And Climate Change. A Decision Support Process For A Community Forest In The Austrian Alps	Florian Irauschek	Austria
	Architecture Of A Decision Support System To Address Climate Change (SADfLOR)	Jordi Garcia-Gonzalo	Portugal

	Long-Term Forest Planning Under Risk And Uncertainty; Can Robust Linear Programming Help?	Antti Mäkinen	Finland
Poster Prese	ntations:		
	DSS Optimal - A Case Study Form The Czech Republic	Robert Marusak	Czech Republic
	Spatial Aspects Of Biodiversity As A Part Of Harvest Scheduling Decision Process	Jan Kaspar	Czech Republic
	Balancing Biomass And Biodiversity In Protected Areas, The Triglav National Park Case Study	Aleš Poljanec	Slovenia
	Evaluating Future Wood Availability In Europe. Methods And Tools	Susana Barreiro	Portugal
	The System Of Silviculture For Conservation And Development (SICODESI), Lessons From A Successful Case Of Forest Management In Jalisco, México	Francisco Dominguez Hernandez	Mexico

## B-06A (217A) Research And Management Implications Of The Economics Of Ecosystem Services

Room:	150 E		
Organizers:	Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi State University, USA) & Runsheng Yin (Michigan State University, USA)		
Moderators:	Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi Stat	e University, USA)	
Description:	This session will include presentations focused on research and management related to the economic and accounting aspects of ecosystem services, including the effects on management decisions.		
	Lessons Learned From China For Designing And Implementing Payments For Ecosystem Services Initiatives	Runsheng Yin	United States
	Remote Sensing And Field-Level Evaluation Of Payments For Forest Conservation: Ecuador's Socio Bosque Program	Phillip Mohebalian	United States
	Public Management Model In Payment For Environmental Services In The Sabiaguaba Dune's Natural Park, Fortaleza-Brazil.	Marco Andrés González Carantón	Brazil
	Experimental Differentiated Valuation Of Forest Services' Socio-Economic Importance In The Frame Of Czech Republic	Ludek Sisak	Czech Republic
	Participatory And Multi-Criteria Analysis For (Forest) Ecosystem Management: A Case Study Of Pohorje, Slovenia	Lidija Zadnik (Stirn)	Slovenia
	An Investigation Of Nationality And Distance Dependence For Biodiversity Transnational Coordination.	Fatemeh Bakhtiari	Denmark

## B-09A (64A) What Future For Tropical Silviculture?

Room:	155 E		
Organizers:	Robert Nasi (CIFOR, Indonesia) & Plinio Sist (CIRAD, France)		
Moderators:	Robert Nasi & Plinio Sist		
Description:	This session will present experimental data on the sustainability of selective logging and plantation management in the tropics, with an emphasis on the impact of tropical silviculture on biodiversity, biomass production and ecological processes natural and planted forests.		
	Current State And New Trends In The Silviculture And Sustainable Management Of Tropical Production Forests	Plinio Sist	France
	Past, Presence And Possible Futures Of The Western Congolian Lowland Rainforest (WCLRF)	Stephan A. Pietsch	Austria

	Forest Resilience Depends On The Stand Variations: Forest Dynamics Of An Amazonian Forest 30 Years After Logging	Lucas Mazzei	Brazil
	Tropical Shelterwood System And Its Impact On The Heterogenous Forests Of West Africa: The Nigerian Experience.	EKeoba Isikhuemen	Nigeria
	Adaptation Of Eucalypt Trees To Water And Nutrient Deficiencies: Insights From Brazilian Experiments Question Conventional Recommendations	Jean-Paul Laclau	France
Poster Prese	ntations:		
	Eucalyptus Stocking And Soil Preparation In A Frontier Region At North Of Brazil: Necessity Of Changing Concepts From Traditional Regions	Rodrigo Hakamada	Brazil
	Post-Logging Stand Dynamics Of A Tropical Rain Forest In The Brazilian Amazon	Angela Luciana De Avila	Brazil
	Natural Regeneration Management Of "Pau Mulato" In Amazonian Estuary Floodplains Forests	Marcelino Carneiro Guedes	Brazil
	Impact Of Logging Operations On The Remnant Forest Of A Humid Tropical Forest In The Imataca Forest Reserve, Venezuela	Néstor Gutierrez	Venezuela
	18 Years Of Post-Logging Recovery In A Mixed Dipterocarp Forest Sabah, Borneo: Evaluation Of Modified Ril And Climber Cutting.	Daniel Lussetti	Sweden
	Potential Of Natural Forest Production In Sinop County At Amazonia Region, Brazil	Patricia Mattos	Brazil
	Development Of Pericopsis Elata's Seedling Around Seed Bearer In A Logging Forest Of South East Cameroon	Nnanga Mebenga Ruth Laure	Cameroon
	Tree Diversity And Soil Nutrient Studies Of Logged-Over Forest In Peninsular Malaysia	Mohd Nazip Suratman	Malaysia
	The Vegetation Recovery Of Tropical Rain Forests Under Different Commercial Logging Manners On Hainan Island, China	Yi Ding	China

## B-16A (178A) Contribution Of Genetics And Genomics To Conservation And Sustainable Management Of Forests Under Changing Environmental Conditions

Room:	250 D		
Organizers:	Om Rajora (University of New Brunswick, Canada) & Wickneswari Ratnam (Unive	ersiti Kebangsaan, Malaysia)	
Moderators:	Om Rajora		
Description:	The session will explore the impacts of and future directions for forest genetics sustainable management of forest genetic resources and understanding adapta environmental change.		
	The Role Of Genomics Research In Understanding Responses And Adaptation Of Forest Trees To Changing Climate And Environmental Conditions	Om Rajora	Canada
	Assessing The Adaptive Portfolio Of Reforestation Stocks For Future Climates	Sally Aitken	Canada
	Population And Landscape Genomics To Study Local Adaptation In Loblolly Pine (Pinus Taeda L.) Populations And To Breed More Climate Change Resilient Trees	Konstantin Krutovsky	Germany
	Bioprospecting For Novel Genes Through Characterization Of Leaf Transcriptome Of Withania Somnifera, A Valued Medicinal Plant	Modhumita Dasgupta	India
	Range-Wide Geographic Variation In Prunus Africana At The Molecular And Chemical Level	Thomas Geburek	Austria

The Evolutionary History And Genetic Diversity Of Ponderosa Pine: Management Implications For An Important Species Of Western North America	Kevin Potter	United States
Visualising The Environmental Responses Of Forest Tree Populations	Roger Meder	Australia
Using Case Studies For Enhancing Capacity In Managing Forest Genetic Resources	Judy Loo	Italy

#### // FORESTS AND CLIMATE CHANGE

## C-03 (46) Understanding The Relationships Among Biodiversity, Carbon, And People For REDD+ Forests: The Importance Of Environmental And Social Safeguards

Room:	250 E		
Organizers:	lan Thompson (NRCan-Canadian Forest Service), Kimiko Okabe (Forestry and Forest Products Research Institute, Japan), Jae Soo Bae (Korea Forest Research Institute, Republic of Korea) & John Parrotta (U.S. Forest Service)		
Moderators:	lan Thompson		
Description:	This session will examine the important relationships that exist among biodiversity, carbon storage and people in REDD planning, with a particular emphasis on formulation and application of environmental and social safeguards.		
	Improved Understanding Of The Role Of Biodiversity In Ecosystem Services Leads To Better REDD Forest Management	lan Thompson	Canada
	Social And Economic Considerations Relevant To REDD+	Bhaskar Vira	United Kingdom
	Integrating REDD+ Governance: Lessons At Global, National And Local Scales	Constance McDermott	United Kingdom
	Local Participation In Global Conservation: Villagers' Knowledge And Perceptions Of Incipient REDD+ Initiatives	Amy Duchelle	Brazil
	An Assessment Of The Impacts Of The REDD+ Pilot Project On Community Forests User Groups (CFUGs) And Their Community Forests In Nepal	Tek Maraseni	Australia
	REDD+ And Community Adaptive Capacity In The Central Highlands Of Vietnam	Thu-Ba Huynh	Australia
	Collaborative Forest Management With Effective REDD+ Social Safeguards: An Experience From A National Park In East Java, Indonesia	Kazuhiro Harada	Japan
	Analyses Of Potential Livelihood Outcomes, Farming Practices And Conflicts In Natural Resource Use Under A REDD+ Implementation In Ghana	Kwame Antwi Oduro	Ghana

## C-11 (143) Forest Resistance And Resilience In The Face Of Natural Hazards

Room:	151 A		
Organizers:	Alexia Stokes (National Institute for Environmental and Agricultural Science and Research, France), Frank Telewski (Michigan State University, USA) & Thierry Fourcaud (CIRAD, France)		
Moderators:	Alexia Stokes, Frank Telewski		
Description:	The session will explore how natural, plantation and urban forests can withstand weather and geomorphological hazards, as well as the mechanisms of ecosystem resilience and failure after disturbance.		
	Natural Hazards In Forests - Does Time Heal All Wounds?	Alexia Stokes	France
	Thigmomorphogenesis: Increasing Tree Resistance To Wind Storms	Frank Telewski	United States

	Impact Of Changing Climate And Disturbances On Forests Providing Protection From Gravitational Hazards	Giorgio Vacchiano	Italy
	Spatial Analyze Of Trends In Extreme Precipitation And Prediction The Landslide Susceptibility Of National Forestland In Kaoping Basin, Taiwan	Ya-Li Huang	China-Taipei
	Strategies For Improving Hybrid-Mechanistic Windthrow Models	Stephen Mitchell	Canada
	Understory Dynamics After Disturbance Accelerate Succession From Spruce To Beech Dominated Forest	Andreas Bolte	Germany
	Multi-Year Response To Historic Drought-Induced Canopy Dieback In A Mediterranean-Type Forest In Southwestern Australia	George Matusick	Australia
Poster Presen	tations:		
	Simulating Forest Dynamics And Vulnerability Of Cork Oak Woodland Production Systems: A New Index For Vulnerability Assessment And Control.	Nuno Almeida Ribeiro	Portugal
	Spatiotemporal Heterogeneity Of Water And Root Distribution And Their Impact On The Slope Stability In A Mixed Mountains Forest	John Kim	France
	How Does The Asymmetry Of Root System Architecture Modify Soil Strength And Slope Stability?	Zhun Mao	France
	Drought Effects On Forest Health And Growth In The Western Part Of The Eurasian Steppe Region	Ionel Popa	Romania
	Impacts Of Natural Forest Landslides In A Rural Community Of Morretes, Pr- Brazil	Maria Augusta Rosot	Brazil
	Rehabilitation Process Of Natural Mixed Forest After Wind Disturbance By Typhoon In Hokkaido, Japan In Northern, Hokkaido	Masayoshi Takahashi	Japan

## C-12A (58A) Quantifying Uncertainty In Forest Measurements And Models: Approaches And Applications

Room:	250 F		
Organizers:	George Gertner (University of Illinois, USA), Bogdan Strimbu (Louisiana Tech University, USA), David Paré (NRCan-Canadian Forest Service) & Peter Clinton (Scion, New Zealand)		
Moderators:	George Gertner		
Description:	This session will present approaches to analyzing uncertainty in forest measurements and give examples of applications of uncertainty analysis in above- and belowground estimates of forest biomass, carbon, and nutrient pools and fluxes, and other ecosystem attributes.		
	Quantifying Uncertainties In National Estimates Of Living Biomass – A Comparison Of Methods	Johannes Breidenbach	Norway
	On Identifying And Establishing Confidence Limits Of Trends	Biing Guan	China-Taipei
	Characterizing Uncertainty In Forest Disturbance Maps Derived From Landsat Time Series	Warren Cohen	United States
	Assessment Of Scenario Generation Approaches For Forest Management Planning Through Stochastic Programming	Kyle Eyvindson	Finland
	Parameterization Of 3-PG Model For Slash Pine Trees: Assessing Climate Change Effects On Stand Dynamics And Productivity	Carlos Gonzalez-Benecke	United States
	A Systematic Framework For Monte Carlo Simulation Of Remote Sensing Errors Map In Carbon Assessments	Sean Healey	United States
	Scaling Of Uncertainty In Carbon Emission Estimates And Implications For Locally Appropriate Designs To Reduce Emissions From Degradation, Deforestation And Agroforestation In Landscape Mosaics	Meine van Noordwijk	Indonesia

	Uncertainty In Estimating The Timing Of Greenhouse Gas Emission Balance Of Forest Bioenergy	David Pare	Canada	
C-23B (107B) Forest Management For Adaptation To Climate Change				
Room:	251 A-C			
Organizers:	Rodney Keenan (The University of Melbourne, Australia), Carina Keskitalo (Umea Africa, Cameroon) & Guangyu Wang (University of British Columbia, Canada)	University, Sweden), Kalame	Fobissie (WWF Central	
Moderators:	Rodney Keenan			
Description:	This session will focus on options for adaptation to climate change in forest mar perspectives including decision tools for adaptation to climate change and best tropical, temperate and boreal biomes.			
	Effectiveness Of Climate Change Communication In Promoting Engagement With Climate Science And Adaptation Among Forestry Stakeholders	Gregor Vulturius	Sweden	
	Overcoming Adaptation Barriers Surrounding Climate Change In U.S. Federal Land Management Agencies: The Importance Of Research-Management Communication And Scale.	Kerry Kemp	United States	
	A Multiple Values Trade-Offs Framework For Climate Change Adaptation	Qinglin Li	Canada	
	Integrating Multi-Discipline Models To Estimate Impacts Of Climate Change And Mitigation Policies On The Global Forestry Economics Sector	John Kim	United States	
	Impact Of And Responses To Climate Change From The Perspective Of Traditional Forest Knowledge In Guizhou Province Of China	Juanwen Yuan	China	
	Applying Resilience Thinking To Production Forest Ecosystems	Lucy Rist	Sweden	
	Testing The Insurance Hypothesis: Can Tree Species Diversity Buffer Ecosystem Services Against Disturbance Impacts?	Mariana Pedro	Austria	
	How Fast Can European Forests Adapt To Climate Change?	Geerten Hengeveld	Netherlands	

## C-30 (19) Novel Ecosystems And Intervention: Adaptation To Climate Change

Room:	150 F		
Organizers:	John Stanturf (U.S. Forest Service) & Palle Madsen (University of Copenhagen, Denmark)		
Moderators:	Palle Madsen		
Description:	This session will explore current perspectives on restoring forests under the sime globalization and climate change.	ultaneous pressures of land u	se change, trade
	Novel And Neo-Native, Native And Exotic, Restoration And Intervention, Oh My!	John Stanturf	United States
	Paleoclimatic Shifts And Novel Ecosystems	Constance Millar	United States
	Novel Ecosystems Resulting From Altered Fire Regimes	Richard Bradshaw	United Kingdom
	The Influence Of Climate Change On Forest Ungulates: The Paradox Of "Restoring" Novel Ecosystems	Thomas Rooney	United States
	Can We Predict The Ecological Implications For Restoration Of An Extirpated Forest Tree Species Under Global Change?	Douglass Jacobs	United States

Role Of Assisted Migration In Forest Ecosystems On The Cusp Of Change	Kasten Dumroese	United States
Complex Forest Stand Structures For Risk Reduction And Adaptation	Kevin O'Hara	United States
Pushing The Envelope: Forest Management Strategies For Adapting To A Changing Climate In Canada	Philip Burton	Canada

## // FORESTS AND WATER INTERACTIONS

## D-03 (127) Land Use/Land Cover Change And Hydroecology: Consequences At Variable Spatial Scales

Room:	151 B		
Organizers:	Latif Kalin (Auburn University, USA), Yusuf Serengil (Istanbul University, Turkey) & Columbia, Canada)	Xiaohua (Adam) Wei (Univers	sity of British
Moderators:	Latif Kalin		
Description:	This session will focus on hydrologic and ecologic issues in watershed at various spatial scales, as affected by spatial mosaic of land use (and associated water use and management practices), and multiple stress factors such as urbanization, climate change, and air pollution.		
	The Effect Of Land Use Change On The Ecosystem Services Provided By Headwater Wetlands In Alabama	Christopher Anderson	United States
	Mind The Gap: Trees Can Improve Groundwater Recharge In The Seasonally Dry Tropics	Aida Bargués Tobella	Sweden
	How Much Do Bark Beetles Change The Annual Water Cycle Of A Spruce-Fir Forest?	John Frank	United States
	Floodplain Forest Restoration: Rethinking Management Legacies For Flood Mitigation And Consumptive Water Use In Flood Prone Lands	Jason Hubbart	United States
	The Impacts Of Forest Changes On Flow Regimes In The Upper Reach Of Poyang River Basin	Wenfei Liu	China
	Role Of Land Use/Cover And Water Quality On West Nile Virus Incidence	Navideh Noori	United States
	Prediction Of Channel Erosion In Watersheds Along Urban-Rural Transition	Pınar Pamukçu	Turkey
	Effect Of Forest Changes On River Discharge And Sediment In A Large Scale Watershed	Ping Zhou	China

## D-08 (238) Sustaining Riparian Biodiversity And Ecosystem Services In A Changing Climate

Room:	151 C		
Organizers:	Kathleen Dwire (U.S. Forest Service), Michael Pollock (National Oceanic and Atm of Montana, USA)	nospheric Administration, USA	) & Chris Frissell (University
Moderators:	Kathleen Dwire		
Description:	This session will focus on innovative approaches to restoration and maintenance in riparian forests.	e of biological diversity and es	ssential ecosystem services
	Riparian Forest Conservation And Restoration: A Few Examples From Eastern France	Herve Piegay	France
	The Critical Role Of Fluvial Disturbance For Riparian Forest Development Along Large Rivers In Dry Regions (California, USA)	John Stella	United States
	Does Thinning Restore Late-Successional Forest Structure?	Michael Pollock	United States

Climate Change And Forest Thinning With Riparian Buffers: Relationships To Shrinking Headwater Stream Habitat	Deanna Olson	United States
Historic And Current Fire Patterns In Sierra Nevada Riparian Forests	Malcolm North	United States
Streamside Buffers Moderate Effects Of Forest Thinning On Riparian Microclimates And Stream Temperatures In Western Oregon, USA	Paul Anderson	United States
Fuels And Fuel-Reduction Treatments In Riparian Conifer Forests: Challenges Of Maintaining Streamside And Aquatic Habitats	Kathleen Dwire	United States
Effects Of Wild Ungulate Herbivory On Riparian Restoration For Salmonids	Mary Rowland	United States

## // FOREST BIOMASS AND BIOENERGY

#### E-02A (11A) Environmental Impacts Of Intensive Management Of Forest Soils For Timber And Bioenergy Production

Room:	150 G		
Organizers:	Deborah Page-Dumroese (U.S. Forest Service), Peter Clinton (Scion, New Zealand), Liisa Ukonmaanaho, (Finnish Forest Research Institute) & Hailong Wang (Zhejiang Agricultural and Forestry University, China)		
Moderators:	Peter Clinton & Liisa Ukonmaanaho		
Description:	This session will address a range of biogeochemical and environmental consequences of timber harvesting or bioenergy production; topics will include intensive forest soil uses such as cultivation, fertilization, nutrient removals in biomass, replacement of soil nutrients via deposition and biodiversity.		
	Biomass Harvesting In Fennoscandian Boreal Forests – Nutrient Removals And Nutrient Status	Leena Finér	Finland
	Short- And Long-Term Ecological Consequences Of Removal Of Harvesting Residues For Bioenergy From Forests In Norway	Nicholas Clarke	Norway
	Sustainable Forest Harvest Requires Nutrient Supply From Soil Pools: Ecosystem Budgets For Second-Growth Northern Hardwoods In New Hampshire, USA	Ruth Yanai	United States
	A Sustainability Index For Improving Nutrient Management In Short Rotation Bioenergy Systems	Stanley Sochacki	Australia
	Assessment Of Forest Logging Influence On Soil Environment	Martina Cambi	Italy
	Linking Forest Soils And Ecophysiology To Improve Sustainable Management Of Forest Plantations	Thomas Fox	United States
	Hydrological Constraints In Eucalyptus Plantations Harvest Scheduling Models	Juan Carlos Gimenez	Spain

#### // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

## F-04 (162) Greening Society And Non-Wood Forest Product Commercialisation: Assessing The Environmental, Economic And Social Trade-Offs

Room:	151 D
Organizers:	Luis Fontes (Technical University of Lisbon, Portugal), Jenny Wong (Wild Resources Ltd, UK), Robert Mavsar (European Forest Institute, Finland) & Marla Emery (U.S. Forest Service)
Moderators:	Robert Mavsar & Marla Emery
Description:	This session will explore trade-offs inherent in the sustainable provision of NWFPs and the possible consequences of globalization of demand for new products and services on the environment and on forest-dependent communities.

Balancing Subsistence And Commercialization: Perspectives From No American Indigenous Peoples' Experience	Marla R. Emery United States
Forest Conservation And NTFPs Utilization In Southwest Ethiopia: An C Of Actors And Their Interactions	Overview Tefera Belay Endalamaw Ethiopia
European Non-Wood Forest Products (NWFPs) Network	Luis Fontes Portugal
Economic Contribution Of Gums And Resins Resources To Household Livelihoods And National Economy Of Ethiopia	Zenebe Mekonnen Gebretsadik Ethiopia
Development Of The Global Trade Of Non-Wood Forest Products	Robert Mavsar Finland
Towards A New Paradigm: Valuation Of The Impacts Of Reforestation Timber Value-Chain Projects On Fundamental Human Needs	And Non Nicolas Métro France
Non-Timber Forest Products: A Sustainable Development Path Full Of Obstacles. A Case Study In Costa Rica	Roger Villalobos Costa Rica
Poster Presentations:	
Socio-Economic Importance Of Indigenous Fruit Trees: Strychnos Coc And Schinziophyton Rautanenii In Rundu Rural West Constituency, Ka Region, Namibia	
Analysis Of Non-Timber Forest Products Activities And Income Among Households In Nigeria	g Rural Oluseyi Olugbire Nigeria
Decision-Making Along A Tropical Forest Product Commodity Chain: Implications For Ecological Sustainability	Jose Antonio Sierra Huelsz Mexico
The Characteristics Of Global Trade Of Truffles	Enrico Vidale Italy
Wild Mushroom In Italy: From A Commodity To A Recreational Service	Enrico Vidale Italy
Non-Timber Forest Products Income Contribution To Households Ecor Xing'An Mountains Forest Area	nomy In Hongge Zhu China

## F-11A (183A) Forest Operations Engineering And Management - The Way Ahead

Room:	155 F		
Organizers:	Hans R. Heinimann (ETH Zurich, Switzerland) & Woodam Chung (Oregon State University, USA)		
Moderators:	Hans R. Heinimann		
Description:	The session aims at bringing together regional perspectives of research and development in forest operations engineering and management, and setting an agenda of issues to be addressed collectively and internationally during the next 5 years.		
	Forest Operations Engineering And Management Achievements And Perspectives - The Formec View	Karl Stampfer	Austria
	Forest Operations Engineering And Management Achievements And Perspectives - The Cofe View	Woodam Chung	United States
	Forest Operations Engineering And Management Achievements And Perspectives - The SSFAR/IIFORMS/INCOSE View	Sophie D'Amours	Canada
	Environmental Assessment Of The Technological Innovation Process On Forestry Harvesting	Carla Portugal	Brazil
	The Future Roles Of Ergonomic Research In World Forests And Forestry	Yozo Yamada	Japan

#### // FOREST HEALTH IN A CHANGING WORLD

#### G-05 (166) Global Approaches To The Biological Control Of Invasive Eucalyptus Pests

Room:	151 E		
Organizers:	Simon Lawson (Queensland Department of Agriculture, Fisheries and Forestry, A Nahrung (University of the Sunshine Coast, Australia)	ustralia), Toni Withers (Scion,	New Zealand) & Helen
Moderators:	Simon Lawson & Toni Withers		
Description:	This session focuses on biological control of eucalypt pests worldwide, including pests, recent invasions, and the selection of effective control agents	updates on biocontrol progra	ams for long-established
	An Island Down-Wind Of Australia Has A Unique Experience Of Eucalyptus Pest Biological Control - The New Zealand Story	Toni Withers	New Zealand
	The Californian Experience Of Eucalypt Insect Biological Control With Special Emphasis On The Red Gum Lerp Psyllid Glycaspis Brimblecombei	Timothy Paine	United States
	Lessons From Successful Classical Biological Control In Israel Of Leptocybe Invasa And Ophelimus Maskelli	Zvi Mendel	Israel
	Biological Control Of The Eucalyptus Gall Wasp, Leptocybe Invasa, In South Africa	Brett Hurley	South Africa
	Towards Biological Control Strategies For The Bronze Bug Thaumastocoris Peregrinus On Eucalyptus Plantations In South America	Gonzalo Martinez	Uruguay
	Biological Control Of The Bronze Bug Thaumastocoris Peregrinus (Hemiptera: Thaumastocoridae) In Eucalyptus Plantations In Brazil	Carlos Wilcken	Brazil
	Bicep: Australia's Key Role In Providing Biocontrol Solutions For Global Australian-Origin Eucalypt Pests.	Simon Lawson	Australia

## G-12 (34) The Co-Evolution Of Insects And Fungi That Form Symbiotic Relationships And Kill Forest Trees

Room:	250 C		
Organizers:	Mee-Sook Kim (Kookmin University, Republic of Korea) & Philip Cannon (U.S. Forest Service)		
Moderators:	Mee-Sook Kim & Phil Cannon		
Description:	This session will focus on tree mortality that is the result of mutualistic symbioses between insects and fungi.		
	Fungal Associates Of The Pine-Infesting Bark Beetle Dendroctonus Approximatus In Mexico And Central America	Tessa Bauman	United States
	Fungi And Insects Diversity Associated With Pinus Radiata In Pitch Canker Affected Stands	Julio Javier Diez-Casero	Spain
	Fusarium Dieback And Its Ambrosia Beetle (Coleoptera: Scolitinae) Vector: A Generalist Disease/Pest Complex Threatening Agricultural And Natural Landscapes In California	Akif Eskalen	United States
	The Tree-Killing Ambrosia Symbiosis Illuminated With Modern Methods: Sometimes Stable, Sometimes Promiscuous, And Increasingly More Predictable	Jiri Hulcr	United States
	Factors Influencing The Percentage Of Tree Mortality By The Japanese Oak Wilt	Naoto Kamata	Japan
	Overview And Origin Of Oak Mortality Caused By An Ambrosia Beetle-Fungus Complex In South Korea	Mee-Sook Kim	Republic of Korea

Chemical Ecology Of The Walnut Twig Beetle, A Pest Of Significance To The<br/>International Cultivation Of Walnut For Nut And Timber ProductionSteven SeyboldUnited StatesCo-Evolution Of The Siricid-Amylostereum Mutualism On ConifersBernard SlippersSouth Africa

#### G-13 (8) Modeling As A Tool For Improving The Knowledge On Forest Vulnerability And Risk Exposure In A Changing World

Room:	151 F		
Organizers:	Alessandra De Marco (ENEA, Italy) & Salim Belyazid (Lund University, Sweden)		
Moderators:	Salim Belyazid		
Description:	This session will explore various modeling approaches to assess the effects of cl	limate change and air pollutio	on on forest ecosystems.
	Can Modeled And Measured Data Interact To Evaluate Forest Health Condition?	Elena Paoletti	Italy
	Combining Large-Scale Simulation With Economic Models To Investigate Impacts Of Climate Change On Forests	Marc Hanewinkel	Switzerland
	Impact Of Climate And Site Conditions On The Growth-Mortality Relationship In European Tree Species	Lisa Hülsmann	Switzerland
	Uncertainty And Sensitivity Analyses: Can Model Structure Be Improved? The Case Of The Wind-Risk Model Forestgales	Tommaso Locatelli	United Kingdom
	Predicting The Spore Infection Depending On Climate To Model The Heterobasidion Annosum Dynamics In Even-Aged Pinus Pinaster Stand	Céline Meredieu	France
	Modeling Spruce Beetle And Fire Disturbance Under Climate Change And Adaptive Management In Subalpine Forests Of Northern Colorado, USA	Christian Temperli	United States

# FRIDAY 10 OCTOBER – TECHNICAL SESSIONS 15:30–18:00

## // FORESTS FOR PEOPLE

#### A-08B (108B) Small-Scale And Community Forestry For People, Biodiversity And Ecosystem Services

Room:	Room: 250 A		
Organizers:	Organizers: John Herbohn (University of the Sunshine Coast, Australia), Gun Lidestav (Swedish University of Agricultural Sciences), Gary Kerr (UK Forestry Commission), Jessica Leahy (University of Maine, USA) & Christoph Hartebrodt (Forest Research Institute Baden- Württemberg, Germany)		
Moderators:	Moderators: Emily Silver (University of Maine) & John Herbohn		
Description:	Description: This session will address the complex and multidimensional nature of small-scale and community forestry systems, with a focus on the economic, institutional and policy issues; uneven-aged and mixed species silviculture of small-scale and community forestry; forest land ownership in change and its significance for management and policy; and the links between attitudes and behaviors of small-scale forest landholders.		
	Family Forest Ownership Research In The United States: Past, Present, And Future.	Brett Butler	United States
	Small-Scale Forestry And Policy Challenges In East Asia	Noriko Sato	Japan

Biodiversity And Ecosystem Carbon Budget In The Upland Landscapes Following Shifting Cultivation By Small-Holder Kaingin Farmers In The Philippines	Sharif Ahmed Mukul	Australia
Attitude Towards Risk And Production Decision : An Empirical Analysis On French Private Forest Owners	Marielle Brunette	France
Community Forestry And Fire Management: Combining Social And Ecological Research To Strengthen Land Management In Communal Forests In Rural Mexico	Rachel Sheridan	United States
Modeling Private Woodland Owner Timber Harvesting Behavior Using Social Interactions, Risk Perception, And Peer-To-Peer Networking	Emily Silver	United States
Understanding Forest Owners' Propensity To The Provision Of Ecosystem Services: A Survey In The Veneto Region Of Italy	Enrico Vidale	Italy
Why Bother To Plant Trees? The Difficulties Of Legally Harvesting Small-Scale Community Forests In The Philippines.	John Herbohn	Australia

## A-12 (174) Participatory Protected Area Management At The Human Needs And Sustainable Wildlife Conservation Interface

Room:	150 D		
Organizers:	C.A.M. Sylvestre Djagoun (Université d'Abomey-Calavi, Benin), Hugues Akpona (National Forest Office, Benin), Edward D. Wiafe (Presbyterian University College, Ghana) & Achille Assogbadjo (Université d'Abomey-Calavi, Benin)		
Moderators:	C.A.M. SylvestreDjagoun & Hugues Akpona		
Description:	This technical session will highlight experiences and best practices in participatory wildlife management involving local communities in protected areas throughout the world, with a particular focus on Africa.		
	Bovid Responses To Anthropogenic Effects, Habitat And Environmental Parameters In The Pendjari Biosphere Reserve (Northern Benin) During The Dry Season	Chabi Djagoun	Benin
	Spotted Necked Otters Vs. Fishermen In Hlan River, Benin: Key Ecological And Socio-Economic Factors Of A Conflict.	Hugues Akpona	Benin
	Rodents As Food Sources In Lama Forest Reserve In Benin	Achille Assogbadjo	Benin
	Integrating Local Communities To Safeguard Livelihoods And Resolve Conflicts In The Kakum Conservation Area, Ghana	Emmanuel Danquah	Ghana
	Wildlife Laws Monitoring As An Adaptive Management Tool In Protected Area Management In Ghana: A Case Of Kakum Conservation Area	Edward D. Wiafe	Ghana
Poster Prese	ntations:		
	Exploring Opportunities For Participatory Wildlife Management At The Bia Biosphere Reserve In Western Ghana	Emmanuel Danquah	Ghana
	Stable Carbon Isotope Analysis Of The Diets Of West African Bovids In Pendjari Biosphere Reserve (Northern Benin)	Chabi Djagoun	Benin
	Manning The Front Lines Of Biodiversity Conservation: Developing Competency Standards For Protected Areas Management In The Philippines	Floribel Paras	Philippines
	Co-Management Approach To Protect The Protected Areas: Realistic Or Naive?	Md. Nazmus Sadath	Bangladesh
	Evaluation Of The Efficacy Of Pepper-Grease Fence To Prevent Elephant Crop Raiding On Farms Around Kakum National Park, Ghana	Edward D. Wiafe	Ghana

A-23A (101A) Transitions To Sustainable Forest Management: Economic, Social And Cultural Parameters			
Room:	250 B		
Organizers:	Jinlong Liu (Renmin University of China), Wil de Jong (Kyoto University, Japan), Yeo-Chang Youn (Seoul National University, Republic of Korea) & De Lu (Asia-Pacific Network on Sustainable Forest Management and Rehabilitation, China)		
Moderators:	Jinlong Liu		
Description:	This session will examine recent studies that shed new light on the comprehensive and dynamic interrelationship between forest transition and economic, social, cultural, and political changes and discuss the implication for forest policy and related environmental and climate change policies.		
	The Indigenous Roots Of The 1996 Bolivian Forestry Law And Implications For The Decline In Forestry Certification	Michael Dockry	United States
	'No Chop Um, No Kill Um, But Keep Um": Moving Prunus Africana From An Endangered Species To Everyday Tree In Cameroon?	Verina Ingram	Netherlands
	Forest Common Resources And Sustainability: Van (Forest) Panchayat And Forest Protection Committee In Garhwal, India	Kazuyo Nagahana	Japan
	Land Tenure, Agrarian Change And Forest Cover: The Case Of Mexico	Beth Bee	United States
	Study On The Intelligent Management Of Ecosystem Based On The Complex System Theory	Zuomin Wen	China
	The Local Level Cooperation Forms In Forestry And Their Governance: Croatia And Serbia As Case Studies Of South East Europe	Marina Miovska	Italy
	How Do Local Communities Interpret And Shape Forest Policy Intervention? – Case Of Collective Forest Tenure Reform In China	Yaofeng Luo	China
	Economic Evaluation Of Forest Management Sustainability In Lithuania	Diana Mizaraite	Lithuania

## A-32 (42) Innovative Forest And Environmental Legislation For Better Diversity

Room:	150 B		
Organizers:	Peter Herbst (Villach, Austria) & Rastislav Sulek (Zvolen Technical University, Slovak Republic).		
Moderators:	Peter Herbst & Rastislav Sulek		
Description:	This session will examine contributions, effects and conflicts between specific forest and other environmental legislation in addressing the challenges and manifold threats to forest biodiversity.		
	Historical Reasons Behind The State Domination Of Forest Ownership In Turkey	Ustuner Birben	Turkey
	Legal Framework Of Community Forestry Of Indigenous Peoples In The Amazonian Countries: A Comparison Of National Land And Forest Laws	Siu Lang Carrillo Yap	Germany
	Forest Genetic Resources In The Amazon Tropical Forests – Legal Forestry Framework, Divergences Of Use And Considerations For Conservation	Michelliny Bentes Gama	Brazil
	Legally Binding Agreement On Forests In Europe – A Conventional Negotiating Progress?	Katerina Ventrubova	Czech Republic
	Sources Of Contradictions In Forest And Nature Protection Legislation	Rastislav Sulek	Slovakia
	Challenges Of The Forest And Environment Legislation For Better Biodiversity In Albania	Erjon Muharremaj	Albania
	Locating The Status Of Forest Laws Amongst Other Law Disciplines	Peter Herbst	Austria

## A-37B (227B) Knowledge Exchange And Communication Of Forest Research For Human And Community Well-Being

Room:	150 A		
Organizers:	Cynthia Miner (U.S. Forest Service), Jurij Begus (Slovenia Forest Service), Guy Smith (NRCAN- Canadian Wood Fibre Centre) & Alejandra Real (National Forestry Corporation, Chile)		
Moderators:	Moderators: Cynthia Miner & James Johnson (Oregon State University)		
Description:	The session will focus on the processes used to implement research findings in policies, programs and practices in maintaining and enhancing human health and community well-being, with an emphasis on the human dimensions of sharing and using knowledge.		
	Capacity Building – Training For Forestry Sector To Support Better Cooperation With Local Population; Guyana Case Study	Aleš Poljanec	Slovenia
	A Systematic, Evidence-Based Review Of Key Issues Facing Oregon Family Forest Owners	Janean Creighton	United States
	Predicting WUI Homeowners' Perceptions Of Risk And Willingness To Conduct Defensible Space Activities	Christine Olsen	United States
Poster Prese	ntations:		
	Network "Forest Culture" In Austria. A New Approach To Put International Agreements Into Practice For The Benefit Of Local People	Elisabeth Johann	Austria
	Pedagogy Of Place Institute	Linda Kruger	United States
	Pest Scene Investigators: A Citizen Science-Based Effort To Improve Forest Health In Oregon	Paul Oester	United States
	Uneven-Aged Management In A Mixed-Conifer Forest In Northeast Oregon: A Case Study With An Innovative Educational Approach	Paul Oester	United States
	Forest Culture In The Neotropics: What Is It? Why Is It Needed?	Roger Villalobos	Costa Rica

## // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

#### B-06B (217B) Research And Management Implications Of The Economics Of Ecosystem Services

Room:	150 E		
Organizers:	Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi State University, USA) & Runsheng Yin (Michigan State University, USA)		
Moderators:	Donald Hodges & Donald Grebner		
Description:	This session will include presentations focused on research and management of ecosystem services, including the effects on management decisions.	related to the economic and	accounting aspects
	Bio-Econometric Analysis Of The Efficiency Of Payments For Biodiversity Conservation: A Case Study Of Natura 2000 Forest Contracts In France	Emeline Hily	France
	Economic Value Of Recreational Role Of Selected Urban Forest In Slovenia's Capital: New Information Supporting Sustainability In Forest Management Planning	Anže Japelj	Slovenia
	Walking The Land: Building An Ecosystem Approach In The Highlands & Islands By Connecting Cultural Drivers With Woodland Expansion Interests	Euan Bowditch	United Kingdom

Economic Evaluation Of Carbon Capture In The Apa - Serra De Baturité – Brazil – 2012	Ana Milena Plata Fajardo	Brazil
An Assessment Of Revenue Loss From Legal Timber In Indonesia	Riko Wahyudi	Indonesia
Harmonizing Applications Of Economics And Ecology To Evaluate Ecosystem Services Tradeoffs In Public Lands Management, An Oregon Example	Jeffrey Kline	United States
Economics Of Forest Fire Management: Accounting Of Benefits	Jose Sanchez	United States

B-09B (64B	) What Future For Tropical Silviculture?		
Room:	155 E		
Organizers:	Robert Nasi (CIFOR, Indonesia) & Plinio Sist (CIRAD, France)		
Moderators:	Robert Nasi & Plinio Sist		
Description:	This session will present experimental data on the sustainability of selective logg emphasis on the impact of tropical silviculture on biodiversity, biomass production		
	Harvest Regulation For Multiresource Management, Old And New Approaches	Martin Mendoza	Mexico
	Managing High-Value Tropical Timber Species For Carbon Capture	Sheila E. Ward	United States
	Dry Forests Of Ecuador, Potential For Natural Forest Management And Carbon Sequestration?	Sven Guenter	Costa Rica
	Multiple-Use Forest Management In Madre De Dios, Peru: The Sustainability Of Brazil Nut Production And Timber In An Integrated System	Manuel Guariguata	Peru
	Sustainable Pathways For Primary Forest Under A Changing Climate: Ecological, Social And Economic Constraints	Dominick A. DellaSala	United States
Poster Presei	ntations:		
	Testing A Silvicultural Recommendation: Brazil Nut Responses 10 Years After Liana Cutting	Karen Kainer	United States
	Growth Pattern Of Qualea Albiflora And Goupia Glabra In Amazon Forest, Mato Grosso State, Brazil	Patricia Mattos	Brazil
	Mezilaurus Itauba Sustainable Management In Brazilian Amazon	Patricia Mattos	Brazil
	Species' Grouping For Timber Management In Brazilian Eastern Amazon	Liz Ota	Brazil
	Temperature Effects On Tree And Birds Richness In A Managed Forest For Timber In East Amazonia (Brazil)	Miguel Angel Quimbayo Cardona	Colombia
	Forest Structure And Biodiversity Of Managed Tropical Rainforest For Timber In East Amazonia (Brazil)	Miguel Angel Quimbayo Cardona	Colombia
	A Simplified Method For Yield Regulation Of Miombo Woodlands In The Context Of Participatory Forest Management	Massimiliano Sanfilippo	Italy
	Characteristics, Structure, And Tree Species Diversity Of A Tropical Exploitation Forest After 40 Years Of Regeneration	Franziska Schier	Germany

B-13 (247) Oak Regeneration To Maintain Biodiversity Around The World			
Room:	250 C		
Organizers:	Kurt Gottschalk, Brian Lockhart (U.S. Forest Service), Aytekin Ertas (Istanbul University, Turkey) & Eduard Hochbichler (University of Natural Resources and Life Sciences, Austria)		
Moderators:	Kurt Gottschalk		
Description:	This session will examine oak regeneration around the world in the context of different silvicultural systems and practices to sustain oak forests and their values.		
	Regenerating Oak Forests To Maintain Biodiversity: Oak Forests Around The World	Kurt Gottschalk	United States
	Protected Forests And Habitat Management Alternatives In Oak-Rich Forests In Southern Sweden	Jenny Leonardsson	Sweden
	Regeneration Of Oaks By Direct Seeding – A Review	Magnus Löf	Sweden
	The Development Of Prescribed Fire As A Silvicultural Treatment For Sustaining Biodiversity In Upland Oak Ecosystems In Eastern North America	Patrick Brose	United States
	Large-Scale Patterns Of Quercus Ilex, Quercus Suber, And Quercus Pyrenaica Regeneration In Central-Western Spain	Tobias Plieninger	Denmark
	Oak (Quercus Robur And Q. Petraea) Cluster Planting Increases Tree Species Richness, Stand Productivity And Fosters Oak Growth And Quality	Somidh Saha	Germany
	Effects Of Solar Radiation Transmittance Variability On The Regeneration Of Quercus Aliena Var. Acutiserrata In The Western Qinling Mountains, China	Chunling Dai	Germany
	The Effect Of The Host Plant Phenotypic Variation On Leaf Miner And Gall Forming Insect Associations	Katalin Tuba	Hungary

## B-16B (178B) Contribution Of Genetics And Genomics To Conservation And Sustainable Management Of Forests Under Changing Environmental Conditions

Room:	250 D		
Organizers:	Om Rajora (University of New Brunswick, Canada) & Wickneswari Ratnam (Universiti Kebangsaan Malaysia)		
Moderators:	Om Rajora		
Description:	The session will explore the impacts of and future directions for forest genetics and genomics research on the conservation and sustainable management of forest genetic resources and understanding adaptation in forest trees and their responses to climate and environmental change.		
	Gene Dispersal Inference Across Multiple Forest Patches In An Endangered Medicinal Tree	Haile Yineger Tariku	Ethiopia
	Genetic Diversity Of Central And Peripheral Populations Of Toona Ciliata Var. Pubescens, An Endangered Tree Species Endemic To China	Jun Liu	China
	Identifying Site Characteristics That Explain Variation In Douglas-Fir Productivity, Stem Form And Adaptability	Lauren Magalska	United States
	Karyological Studies On Picea Species	Elena Muratova	Russian Federation
	Development Of A Dna-Based Timber Tracking System For Koompassia Malaccensis In Malaysia	Chai Ting Lee	Malaysia

Genetic Structuring And Triploidy In North American Aspen Populus Tremuloides)	Karen Mock	United States
Fimber Identification Of Cites-Listed Species Dalbergia Retusa And Non-Cites- Listed Species Dalbergia Tucurensis: Wood Anatomy Or Dna Barcoding?	Yafang Yin	China
Genetic Diversity Of Introduced Species Facing Climate Change – Example Of Eucalyptus Robusta In Eastern Madagascar	Tahiana Ramananantoandro	Madagascar

#### // FORESTS AND CLIMATE CHANGE

#### C-12B (58B) Quantifying Uncertainty In Forest Measurements And Models: Approaches And Applications

Room:	250 F		
Organizers:	George Gertner (University of Illinois, USA), Bogdan Strimbu (Louisiana Tech Uni Service) & Peter Clinton (Scion, New Zealand)	versity, USA), David Paré (NR	Can-Canadian Forest
Moderators:	David Paré		
Description:	This session will present approaches to analyzing uncertainty in forest measurer analysis in above- and below ground estimates of forest biomass, carbon, and n		
	Distribution Of Errors Along Stem In Carbon Estimation Using Hemispherical Photography	Bogdan Strimbu	United States
	Modeling The Intra-Stand Variability Of Carbon And Water Fluxes In Clonal Eucalyptus Plantations	Mathias Christina	France
	Total Error Propagated And Partitioned In A Lidar Driven Single Tree Growth Model	George Gertner	United States
	The Effects On Large Area Forest Volume Estimates Of Uncertainty In Individual Tree Volume Model Predictions	Ron McRoberts	United States
	Allometric Equations For Biomass Estimation In Central African Rain Forests: State Of The Art And Challenges	Nicolas Picard	Cameroon
	Quantifying Sources Of Uncertainty Through Traceable And Empirical Approaches At The National Ecological Observatory Network	Joshua Roberti	United States
	Uncertainty And Sensitivity Analysis Of A Tree Mortality Monitoring System	Chonggang Xu	United States
	Testing Of Soil Carbon Models Using Repeated Inventories	Holger Lange	Norway

## C-15 Monitoring Soil Carbon Stocks And Dynamics At Variable Spatial Scales

Room:	150 C		
Organizers:	Robert Jandl (Research and Training Centre for Forests, Natural Hazards and La	ndscape, Austria)	
Moderators:	Robert Jandl		
Description:	This session will explore the challenge of evaluating changes in total soil carbor forests through several case studies worldwide.	n stocks and its components in	n planted and natural
	Estimating Soil Carbon Dynamics In Northern Forests For Reporting To The United Nations Framework Convention On Climate Change (UFCCC)	Lise Dalsgaard	Norway
	Estimating Forest Floor Carbon Content In The United States	Charles Perry	United States
	Warming Effects On Soil C-Cycling: Recap After Nine Years Of Artificial Soil Warming In A Temperate Spruce Forest	Andreas Schindlbacher	Austria

Carbon Loss And Degradation Indicators In Nothofagus Forests Of The Andes And Coastal Range In The Mediterranean Region Of Chile	Francis Dube	Chile
Humus Dynamics In Timberline Ecotones - Case Studies From The Austrian Alps	Klaus Katzensteiner	Austria
Estimation Of Forest Floor Carbon Stocks In A Tropical Montane Forest	Jeyanny Vijayanathan	Malaysia
Soil Organic Carbon And Nitrogen Sequestration Over An Age Sequence Of Pinus Patula Plantations In Eastern Highlands Of Zimbabwe	Lizzie Mujuru	Zimbabwe
Biomass And Soil Carbon Stocks Of Sudanese Acacia Savanna Woodland	Syed Ashraful Alam	Finland

## C-28 (81) Tropical Forest Wetlands, Climate, And Land-Use Change: Adaptation And Mitigation Opportunities

Room:	150 F		
Organizers:	Richard Birdsey, Randall Kolka (U.S. Forest Service), Daniel Murdiyarso (CIFOR, Indonesia) & Boone Kauffman (Oregon State University, USA)		
Moderators:	Richard Birdsey		
Description:	This session will present recent research on carbon stocks and greenhouse gas associated land uses, ecosystem C dynamics modeling tools ,and roles of tropic strategies.		
	The Global Significance And Future Of Tropical Forested Wetlands	Boone Kauffman	United States
	Ecosystem Carbon Storage Of Indonesia's Peat Swamp Forests	Matthew Warren	United States
	Land-Use Change Threats And Knowledge Of Climate Affecting Variables In Tropical Peat Swamp Forests: A Comparison Between Indonesia And Peru	Kristell Hergoualc'h	Peru
	Simulating The Impacts Of Climate Change And Land Conversion On The Carbon Balance Of Tropical Peatlands In Indonesia	Steve Frolking	United States
	Carbon Stocks And Dynamics In The High Altitude Mountain Peatlands Of South America	John Hribljan	United States
	Approaches To Regional And Continental Estimates Of Carbon Stocks And Fluxes In Tropical Wetland Forests And Mountain Peatlands	Erik Lilleskov	United States
	A Preliminary Account Of Carbon Stocks In Mangrove Ecosystems In The Mekong Deltas	Vien Ngoc Nam	Viet Nam
	Carbon Stocks In Mangroves Within The Zambezi Delta, Mozambique	Carl Trettin	United States
	Sediment And C Accumulation Rates In Mangrove Forests	Richard MacKenzie	United States

## C-29 (163) Desertification, Land Degradation And Drought

Room:	250 E		
Organizers:	Hoduck Kang (Dongguk University, Republic of Korea)		
Moderators:	Hoduck Kang		
Description:	This session will focus on desertification, land degradation and drought in ari operational experiences and lessons learned on rehabilitation of degraded land		
	Assessment Of Current Status Of Forest Management On Degradation In Myanmar With Emphasis On Social Aspect To Local People	Inkyin Khaine	Myanmar (Burma)

Rehabilitation Of Degraded Agroecosystem Services Through Forestry In Irrigated Croplands Of Central Asia	Asia Khamzina	Germany
Estimation And Mapping Of Desertification Using Landsat Imagery And Correlation Of Some Variables On A Regional Scale	Munkhnasan Lamchin	Mongolia
Lidar-Derived Structural Diversity Indices As Ecological Indicators For Managing Semi-Arid Ecosystems At Risk Of Desertification	Claudia Listopad	Portugal
Growth Performance Of Several Woody Species In Afforestation Site In Dry Steppe Of Mongolia Under Different Watering And Fertilizer Treatments	Batkhuu Nyam-Osor	Mongolia
Effect Of Land Use Gradient On Sudanian Woody Vegetation Layers In West Africa	Oumarou Ouedraogo	Burkina Faso
Strategies To Improve Degraded Arid Rangelands In Rajasthan, India	Vindhya Prasad Tewari	India
Causal Effects Of Shelter Forests And Water Factors On Desertification Processes During 2000-2010 In The Horqin Sandy Land Region, China	Qiaoling Yan	China

#### // FORESTS AND WATER INTERACTIONS

#### D-06 (86) Role Of Disturbance In Maintaining And Stimulating Aquatic Biological Diversity In Temperate Forest Ecosystems

Room:	151 D		
Organizers:	Robert Danehy (National Council for Air and Stream Improvement, USA)		
Moderators:	Robert Danehy & R.D. Moore (University of British Columbia)		
Description:	This session will focus on the impacts of two natural disturbances (fire and debraquatic biota and the relationship between disturbance severity and recovery per		
	Aquatic Responses To Forest Disturbances: Stream Chemistry From USFS Experimental Forests	Alba Argerich	United States
	Natural And Anthropogenic Disturbance Influences On Aquatic Biological Diversity In Western Oregon	Robert Danehy	United States
	How Does Confounding Impacts Of Flood And Forest Thinning Alter Benthic Macroinvertebrate Community In Japanese Headwater Streams	Takashi Gomi	Japan
	Emulating Natural Disturbance In Riparian Forests To Enhance Shoreline And Aquatic Biodiversity	David Kreutzweiser	Canada
	The Post-Wildfire Response Of Fishtrap Creek, British Columbia: Lessons For Emulation Of Natural Disturbance As A Forest Management Approach	Dan Moore	Canada

## // FOREST BIOMASS AND BIOENERGY

#### E-02B (11B) Environmental Impacts Of Intensive Management Of Forest Soils For Timber And Bioenergy Production.

Room:	150 G
Organizers:	Deborah Page-Dumroese (U.S. Forest Service), Peter Clinton (Scion, New Zealand), Liisa Ukonmaanaho, (Finnish Forest Research Institute) & Hailong Wang (Zhejiang Agricultural and Forestry University, China)
Moderators:	Peter Clinton & Liisa Ukonmaanaho
Description:	This session will address a range of biogeochemical and environmental consequences of timber harvesting or bioenergy production; topics will include intensive forest soil uses such as cultivation, fertilization, nutrient removals in biomass, replacement of soil nutrients via deposition and biodiversity.

Negative Effects Of Stump Harvest And Deep Soil Cultivation On The Soil Carbon Pools Are Mitigated By Enhanced Tree Growth	Arnis Jurevics	Sweden
Stump Harvest At Final Felling – Impact On Soil Surface Disturbance, And Carbon And Nitrogen Dynamics	Lilli Kaarakka	Finland
Manipulating Forest Soils For Greater Productivity: Are There Limits?	Peter Clinton	New Zealand
Environmental Sustainability Of Intensive Forest Biomass Removals: Results Of A Global Meta-Analysis	Robert Fleming	Canada
Variables Of Soil, Plant And Productivity Related With Age And Site Index In Gmelina Arborea Plantation In North Colombia	Miguel E. Cadena	Colombia

#### E-06 (61) Emerging Technologies For Forest Resource Assessment And Genetic Improvement

Room:	151 B		
Organizers:	Xiping Wang (U.S. Forest Service), Jianxiong Lu (Chinese Academy of Forestry), Hof Korea) & Marco Marchetti (Italian Academy of Forest Sciences)	Kyu-Suk Kang (Korea Forest F	Research Institute, Republic
Moderators:	Xiping Wang & Jianxiong Lu		
Description:	This session will focus on assessment of wood and fiber properties of forest plan geo-referenced wood property databases for resource management, and selecti		
	Rapid, Cost-Effective And Non-Destructive Phenotypic Determination Of Meaningful End Use Properties In Tree Breeding Programmes	Roger Meder	Australia
	Distinction Of The Eucalyptus Clones Stiffness Using Ultrasound Applied On Standing Trees	Raquel Gonçalves	Brazil
	Biomass Production In The Short Rotation Coppice Of Poplar Treated With Low-Concentrated Liquid Fertilizer	Kyu-Suk Kang	Republic of Korea
	Genetic Improvement And Advanced Generation Breeding Of Larix Spp. In China	Xiaomei Sun	China
	Evaluating Thinning And Bio-Solid Fertilization Effects On Wood Quality In A 70-Year-Old Douglas-Fir Stand With TOF Acoustic Wave Measurement	Xiping Wang	United States
	Full Automatic Process To Create Forest Inventory Using Terrestrial Lidar	Akira Kato	Japan
	Automated Wood Species Identification By CT Technology	Udo H. Sauter	Germany
	Near Infrared Reflectance (NIR) Spectroscopy: Dialing Stem Chemistry For Optimal Root Disease Resistance And Forest Products.	Brian Via	United States

## // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

#### F-03 (25) Contributions Of Business And Marketing To A Greener Future

Room:	151 C
Organizers:	Eric Hansen (Oregon State University, USA), Tom Hammett (Virginia Tech, USA) & Birger Solberg (Norwegian University of Life Sciences)
Moderators:	Richard Vlosky (Louisiana State University, USA)
Description:	This session covers a wide range of business and marketing theory topics that address how products and markets (timber and non- timber) can be expected to contribute to a greener future.
	Media Consumption, Environmental Values, And The Sustainability Of Forestry: Exploring Perceptions Of Paper And Digital Media Canada

"First I Would Go To IKEA": A Consumer Cultural Approach To Young People's Choice Of Wooden Household Furniture In Germany And Finland	Anne Toppinen	Finland
Designers' Wooden Furniture Ecodesign Implementation In Scandinavian Country-Of-Origin (COO) Branding	Katja Lähtinen	Finland
Fundamentals Of Viable Inclusive Or Pro-Poor Business Models In Community Forestry	Martin Greijmans	Thailand
Global Forest Management Certification – Future Development Potentials	Florian Kraxner	Austria
Role Of The Private Sector In Forest Ecosystem Services (FES): Markets, Drivers, Constraints And Strategies Towards Market Development	Ning Li	Finland
Producer Versus Customer-Oriented Mix Within The Forest Biomass Market	Daniel Halaj	Slovakia
Ongoing Corporate Responsibility Initiatives Amidst An Economic Downturn	Rajat Panwar	United States

#### F-07 (241) Forest Governance And Legality Of Timber: Challenges Of Legality In Practice

Room:	151 A			
Organizers:	Margaret Shannon (University of Freiburg, Germany), Wenming Lu (Chinese Academy of Forestry), Mersudin Avdibegovic (University of Sarajevo, Bosnia-Herzegovina) & Qiang Li (International Tropical Timber Organization, Japan)			
Moderators:	Margaret Shannon & Wenming Lu			
Description:	This session will critically examine the expectation that forest governance can be improved by strengthening institutional and legal requirements for timber legality within a transnational legal context and with emerging national systems for legality assurance.			
	Legality And 'The Three Gs' Bas Arts Netherlands			
	Governance, Legality Of Timber And Corruption: The Case Of The Federation Of Bosnia-Herzegovina	Mersudin Avdibegovic	Bosnia and Herzegovina	
	Legal Challenges For FLEGT And EUTR	Wenming Lu	China	
	Are Timber Legality Requirements Giving Rise To An International Forest Law?	Errol Meidinger	United States	
	Feminist Perspectives On Legality Of Timber And Governance	Margaret Shannon	United States	
Poster Preser	ntations:			
	Evaluation Of The Management Of Two Community Forests In The Eastern Region Cameroon (Asdebym And Codecbom) Under The FLEGT.	Ghislain Aime Fomou Nyamsi	Cameroon	
	The Potential Of Legal Timber Trade Policies To Expand Demand For Us Wood Products In The Chinese Re-Exports Sector	Ziyi Lu	United States	
	Impact Of Timber Legality Policies On Us Wood Importers And Their Business Practices	Benjamin Roe	United States	
	How Can Forest Governance Approaches Under FLEGT VPA And REDD+ Be Helpful For Each Other?	Yitagesu Tekle Tegegne	Finland	
	Residual DNAs Extracted From Timbers And Its Effectiveness For Identification Of Wood Species	Ugai Watanabe	Japan	

F-08 (197)	F-08 (197) Forest Resources Assessment For Non-Wood Forest Products			
Room:	151 E			
Organizers:	Marco Marchetti (University of Molise, Italy); James Chamberlain (U.S. Forest Service), Pawel Staniszewski (Warsaw University of Life Sciences, Poland) & David Pettenella (University of Padua, Italy)			
Moderators:	Marco Marchetti & James Chamberlain			
Description:	on: This session will explore the status and challenges of including non-wood forest products in national forest resource assessments.			
	Potential Gum Hagar Production From Commiphora Holtziana In Kenya	Sheila Mbiru	Kenya	
	Uses And Preferences Of Ntfps Among Urban Households In Ado-Ekiti Metropolis, Ekiti State, Nigeria.	Gideon Adedayo	Nigeria	
	Combined Impact Of Exploitation And Habitat Degradation On The Abundance And Structure Of Mimusops Andongensis Hiern In Benin	Koupamba Gisèle Sinasson Sanni	Benin	
	Resource Assessment And Mapping Of Acacia Senegal Var. Kerensis In Samburu And Isiolo Counties, Kenya	Meshack Muga	Kenya	
	Underground Value: Assessing Non-Timber Forest Products In Appalachia	Steve Kruger	United States	
	Assessment Of Non-Wood Forest Product Resources - Trends In Poland	Pawel Staniszewski	Poland	
	Estimation Of The Value Of Non-Timber Forest Products (NTFP) And Services In Austria	Harald Vacik	Austria	

#### F-11B (183B) Forest Operations Engineering And Management - The Way Ahead

Room:	155 F		
Organizers:	Hans R. Heinimann (ETH Zurich, Switzerland) & Woodam Chung (Oregon State University, USA)		
Moderators:	Woodam Chung		
Description:	The session aims at bringing together regional perspectives of research and development in forest operations engineering and management, and setting an agenda of issues to be addressed collectively and internationally during the next 5 years.		
	Forest Operations Engineering And Management Achievements And Perpectives - The JFES View	Jun'ichi Gotou	Japan
	Harvesting Of Heart Stumps From Poplar And Maritime Pine Forest In South West France	Richard Emeyriat	France
	Quantifying Potential Benefits Of Implementing Computer Generated Skid-Trail Networks	Marco Contreras	United States
	Appling The Optimal Bucking Method To Maximize Profits On Nasunogahara Area, Tochigi Prefecture, Japan	Kazuhiro Aruga	Japan
	A New Numerical Tool To Optimize The Set-Up Of A Standing Skyline And Improve Cable Yarding Planning	Sylvain Dupire	France
	Forest Work Studies: Who, Why, How	Raffaele Spinelli	Italy
	Landscape-Scale Planning For Biodiversity In Tasmanian Production Forests	Amelia (Amy) Koch	Australia
Poster Preser	Poster Presentations:		
	The Forest Roads Information Database System	Jurij Beguš	Slovenia

Developing Dynamic Maps Of Forest Roads With Routes To GPS Navigation Receivers	Amaury Paulo de Souza	Brazil
Biomechanical Evaluation In Eucalyptus Silviculture Operations, In Brazil	Amaury Paulo de Souza	Brazil
Analysis Of Factors Affecting Forest Road Network Planning: A Delphi Study	Elyas Hayati	Iran
Cultivation Of Forest Regeneration Materials Under Artificial Radiant Sources - Effects Of Light Intensity On Energy Consumption And Seedlings' Development.	Marco Hernandez Velasco	Sweden
Comparison Of Thinning Productivities For The Ordinary Systems To The New System With A Small Wheel-Mounted Harvester And Forwarder	Masahiko Nakazawa	Japan
Operational Efficiency Of The Containerized Seedlings Planting Machine	Yukihito Ochiai	Japan
Extraction Of Collapse Risk Factors For Spur Road Using High Resolution DTM	Masashi Saito	Japan
Generalizing Over Graph Representations Of Road Segments: A Zigzag Alignment Model And A Smooth Alignment Model	Hiroaki Shirasawa	Japan
Valorization Of Complementary Working Time Lengths In Timber Harvesting And Skidding Operations	Janusz Sowa	Poland
A New Guide For Work Studies In Forestry	Raffaele Spinelli	Italy
Ergonomic And Productive Effects Of Replacement Steel Wire Ropes With Synthetic Ropes For A Mobile Tower Yarder	Ryosuke Watanabe	Japan
Comparative Study Of The Ergonomic Spectrum At The Levels Of Logging Entities And Prefectures	Yozo Yamada	Japan

#### // FOREST HEALTH IN A CHANGING WORLD

#### G-04 (102) Emerging Invasive Forest Pathogens

Room:	151 G		
Organizers:	Organizers: Phil Cannon (U.S. Forest Service); JP Skovsgaard (Swedish Universit Service) & Steve Woodward (University of Aberdeen, UK)	ty of Agricultural Sciences), N	ed Klopfenstein (U.S. Forest
Moderators:	s: Moderators: Ned Klopfenstein & Phil Cannon		
Description:	<i>n:</i> Description: This session will highlight the emerging forest pathogens Puccinia psidii and Hymenoscyphus pseudoalbidus, which are causing significant disease in the southern and northern hemispheres respectively.		
	Alien Invasive Threats To UK Forests: A Reassessment In The Wake Of Ash Dieback	Steve Woodward	United Kingdom
	Role Of Infection Pressure And Cuticle In Leaf Infection By Hymenoscyphus Pseudoalbidus	Isabella Børja	Norway
	Dieback Of European Ash: Understanding The Inherent Host Resistance And Conservation Strategies For This Ecologically And Economically Important Tree Species	Michelle Cleary	Sweden
	Laboratory And Field Experiments To Test The Susceptibility Of Several Conifers To The Pitch Canker Disease	Julio Javier Diez-Casero	Spain
	The Impact Of Different Strains Of Puccinia Psidii On Hawaii's Ohia (Metrosideros Polymorpha).	Philip Cannon	United States

Genetic Diversity Of Puccinia Psidii - The Cause Of Guava/Eucalypt/Myrtle Rust - And Preliminary Predictions Of Global Areas At Risk	Amy Ross-Davis	United States
Emerging Diseases Threaten The White Pine Resource In Eastern North America	Isabel Munck	United States
Characterization And Distribution Of Fungi Associated With Needle Defoliation Of Eastern White Pine (Pinus Strobus)	Stephen Wyka	United States

#### G-09 (206) Ecology And Management Of Invasive Wood Boring Pests In A Changing World

Room:	151 F		
Organizers:	Juan Carlos Corley (CONICET- INTA, Argentina), Massimo Faccoli (DAFNAE-Agripolis, Italy), Michael Smith (USDA-ARS, USA) & Brett Hurley (University of Pretoria, South Africa)		
Moderators:	Juan C. Corley & Massimo Faccoli		
Description:	<i>n:</i> This session will focus on two specific groups of invasive insects, longhorned beetles and wood wasps, which are causing significant damage to forest ecosystems worldwide.		n are causing significant
	Toward The Eradication Of The Asian Longhorned Beetle, Anoplophora Glabripennis (Coleoptera: Cerambycidae), From North East Italy	Massimo Faccoli	Italy
	Invasive Longhorned Beetles (Cerambycidae) In North America: Who, Where, And What Is Being Done?	Robert Haack	United States
Can Acoustic Technologies Be Used To Protect Trees From Insects? Richard Hofstetter Uni		United States	
	Intercontinental Ecological Comparisons As A Global Tactic For Managing Invasives	Flora Krivak-Tetley	United States
	Patch Size For Sirex Noctilo In Fragmented Landscapes.	Juan Corley	Argentina
	Invasive And Endemic Sirex/Amylostereum Associations	Ann Hajek	United States
	Sirex Noctilio Flight: Patterns In Vertical Distribution.	Andres Martinez	Argentina
	Sirex Noctilio Woodwasp In Australia: A Little Further North Each Year	Helen Nahrung	Australia

# Daily Scientific Program SATURDAY 11 OCTOBER

### NOTES

### SATURDAY 11 OCTOBER- PLENARY SESSION

Plenary 5: Cecil Konijnendijk van den Bosch: City Forests, Forest Cities – Exploring The Complex Liaison Between The Sylvan And The Urban

Room:	Ballroom
Session Chair:	Tuija Sievänen
Description:	Since the rise of the first cities, the relationship between the Sylvan and the Urban has been complex. Although city and forest have often been regarded as enemies, or at least as opposite ends on a continuum between the man-made and the natural, cities have also been heavily dependent on forests, not in the least for their very development. Moreover, some cities have developed as true 'forest cities', integrating trees and woodland into their very fabric and mentality. This presentation analyses the current relationship between forest and city, based on historical insights and present policies, initiatives and projects from across the globe. It emphasises the role of research in strengthening the ties between urban and sylvan, as for example reflected in the advances made by the urban forestry field. Developments such as the rise of green infrastructure thinking and the provision of a range of ecosystem services are critically analysed. Difficulties in assessing cultural ecosystem services are hampering the development of the urban-forest relationship, as forests and trees in urban areas provide a range of cultural services that contribute to the health, wellbeing and happiness of urbanites. Lessons will be drawn for the role of forestry in an urbanising world.

# SATURDAY 11 OCTOBER 11 - SUB-PLENARY SESSIONS 13:30-15:00

#### SP-17 Forests, Water, And People

Room:	155 E		
Organizers:	Shirong Liu (Chinese Academy of Forestry); Ge Sun (U.S. Forest Service) & Tony Simons (World Agroforestry Centre, Kenya)		
Moderators:	Xiaohua Wei		
Description:	This session will review the state of knowledge on forest and water relations at multiple geographical scales, water availability for ecosystems and people under multiple global change stressors, and forest watershed management policies to meet increasing multiple needs and adapt to a changing world.		
	Forest And Water Relations Under A Changing Environment: Worldwide Evidences At Multiple Spatial Scales	Shirong Liu	China
	From Forests To The Faucets: Water Supply Functions Of Forests Under Global Change	Ge Sun	United States
	Forest Watershed Management Policies And Practices Meeting Increasing Multiple Needs In A Changing World	Leon Bren	Australia
	nming Invasions Of Forest Insects And Pathogens: Res sk Management And Phytosanitary Policy	earch Supporting	
Room:	155 F		
Organizers:	Andrew Liebhold (U.S. Forest Service) & Eckehard Brockerhoff (Scion	/New Zealand Forest Researc	h Institute)
Moderators:	s: Andrew Liebhold & Eckehard Brockerhoff		
Description:	This session will provide an overview of current research on pathway management and phytosanitary policy to reduce the risks of introduction of forests pests and diseases associated with international trade.		
	Forest Insect Invasion Pathways In Europe Alain Roques France		

Global Forest Pathogen Invasion Pathways	Alberto Santini	Italy
Pathways Of Major Invasive Forest Pests In China And Issues With International Collaboration	Jianghua Sun	China
Pathway Level Analysis Of Trade Policy For Reducing Invasive Species Risk	Brian Leung	Canada

## SP-19 IUFRO Strategy 2015-2019 – Research Excellence And Information For The Benefit Of Forests And People

Room:	155 A-C
Organizers:	Niels Elers Koch (IUFRO President, Denmark) & Mike Wingfield (IUFRO Vice-President for Divisions, South Africa)
Moderators:	Mike Wingfield

# SATURDAY 11 OCTOBER - TECHNICAL SESSIONS 08:00-10:30

#### // FORESTS FOR PEOPLE

A-10 (239) Establishing Social Institutions For Co-Management Of Public Forest Lands			
Room:	250 C		
Organizers:	Jamie Barbour (U.S. Forest Service), Cassandra Moseley (University of	Oregon, USA) & Susan Charnley	/ (U.S. Forest Service)
Moderators:	Cassandra Moseley		
Description:	Presentations in this session will examine the socioeconomic and socio lands worldwide and the potential biophysical benefits from different m		hing co-management of public
	Stakeholders' Participation In Community Based Forest Management (CBFM) In Cross River State, Nigeria	Ene Abi	Nigeria
	Eco-Agriculture, Green Rural Economy And Sustainable Governance Of The Forests In The Congo Basin	Jean Claude Stone Njomkap	Cameroon
	Participatory Forest Management Networks Of Odisha - Time For More Recognition	Kanna Siripurapu	United States
	Implementing Collaborative Natural Resources Governance For The Sustainable Management Of The Mt Makiling Forest Reserve, Philippines	Nathaniel Bantayan	Philippines
	Participatory Management Model Of The Socio-Ecological System For Sustainable Rural Development And Community Forestry Wellbeing In Mexico	Concepcion Lujan	Mexico
	The First Four Years Of A Collaborative Forest Landscape Restoration Project On Colorado's Front Range: Successes And Lessons Learned	Yvette Dickinson	United States
	Co-Management Of Government-Owned Lands: Lessons From Across The Globe	Jamie Barbour	United States

A-11 (39) American Indian Forestry			
Room:	150 G		
Organizers:	Donald Motanic (Intertribal Timber Council, USA)		
Moderators:	Donald Motanic		
Description:	This panel discussion will explore the perspectives and forest stewardship practices used by Indian tribes in the U.S. to address contemporary challenges such as forest health, climate change, and declines in forest products processing infrastructure.		
	Overview Of Indian Forests And Forestry	Phil Rigdon	United States
	Anchor Forests : A Multi-Ownership Pilot Project In Eastern Washington To Maintain Working Forests.	Steve Andringa	United States
	Sustainable Forest Management Within The Context Of Ecological Change: Community Perspectives And Challenges From The Menominee Tribe Of Indians Of Wisconsin	Michael Dockry	United States
	Recruitment And Retention Of Tribal Youth As Future Management Leaders	Serra Hoagland	United States
	PNW Research Station Tribal Climate Change Research Program	Linda Kruger	United States

## A-23B (101B) Transitions To Sustainable Forest Management: Economic, Social And Cultural Parameters

Room:	250 B		
Organizers:	Jinlong Liu (Renmin University of China), Wil de Jong (Kyoto University, Japan), Yeo-Chang Youn (Seoul National University, Republic of Korea) & De Lu (Asia-Pacific Network on Sustainable Forest Management and Rehabilitation, China)		
Moderators:	Wil De Jong		
Description:	This session will examine recent studies that shed new light on the comprehensive and dynamic interrelationship between forest transition and economic, social, cultural and political changes and discuss the implication for forest policy and related environmental and climate change policies.		
	Exploring The Future Of Timber Resources In The High Forest Zone Of Ghana	Kwame Antwi Oduro	Ghana
	Economic Development, Government Intervention, And Forest Transition In China	Hexing Long	China
	Transition To Sustainable Forest Management And Rehabilitation In The Philippines	Floribel Paras	Philippines
	Public Participation In Forest Restoration And Urban Forest Management In The South Korea	Yeo-Chang Youn	Republic of Korea
	Indonesia'S Forest Management Units As Agents Of Social Safeguards In REDD+ Implementation	Yeonsu Kim	United States
	Transition To Sustainable Forestry Management And Rehabilitation In Japan	Kaori Shiga	Japan
	Forest Transition In China And Interprovincial Flow Of Commodity, Population And Forestry Investment	Huidan Xue	China
	Comparative Analysis Of Forest Transitions In Nine Asian Countries – An Economic Modeling	Yeo-Chang Youn	Republic of Korea

#### A-31 Forest Policy Science: From Rational Choice To Discourse, From Local Level Forest Owners To A Global Learning Architecture

	A Global Loanning Aronitootaro		
Room:	150 B		
Organizers:	Karl Hogl (University of Natural Resources and Life Sciences, Austria), Alexander Buck (IUFRO) & Peter Mayer (Federal Research and Training Centre for Forests, Natural Hazards and Landscape)		
Moderators:	Karl Hogl		
Description:	This session, dedicated to the memory of Prof. Dr. Peter Glück, will include presentations of recent scholarly work which provide a sample of the much broader theoretical-conceptual and thematic areas to which Peter significantly contributed in the course of his academic career.		
	Rationalist vs. Communicative Approaches To Forest Policy: From Policy Science Theory To Institutional Practice	Margaret Shannon	United States
	Organize Or Drown: Western Balkans Forest Owners Ready For Effective Interest Group Formation?	Mersudin Avdibegovic	Bosnia and Herzegovina
	It-Based Tools, Models And Simulations - Bane Or Boon To Legitimacy At The Science-Policy Interface?	Andreas Ottitsch	United Kingdom
	Rethinking Forest Governance In Europe: Beyond Multi-Budgeting	Helga Pülzl	Austria
	Sustainable Forest Management: An Encouraging Discourse Or Dangerous Rhetoric?	Bas Arts	Netherlands
	Towards A Problem Focused Learning Architecture	Benjamin Cashore	United States

#### A-36 (209) From Data To Knowledge, Geospatial Tools And Information Access

Room:	250 D		
Organizers:	Carla Heister (Yale University, USA), Dave Vanderzanden (U.S. Forest Service), Gillian Petrokofsky (Oxford University, UK) & Kevin Megown (U.S. Forest Service)		
Moderators:	Carla Heister		
Description:	This session will focus on forest web/database research and applicatio updating of enterprise information and geospatial data for retrieval and		
	Embed A Librarian In Your Research Group	Carla Heister	United States
	Providing Critical Geospatial Information Through Enterprise Systems - A USFS Experience	Dave Vanderzanden	United States
	Western U.S. Climate Change Geobrowser	Charlie Schrader-Patton	United States
	Ground-Truthing Validation For A Near Real Time Deforestation Monitoring System In The Ucayali Region, Peru	Alejandro Coca Castro	Colombia
	Landscape Change Monitoring System To Support All Lands And Owners For Conus, Hawaii And Alaska	Brian Schwind	United States
	Observatory For Forest Of Central Africa : The Tool For Local Data Collection And Regional Reporting.	Carlos de Wasseige	Congo, Democratic Republic of the
	A Forest Lands Information System In Support Of Sustainable Management And Use Of Forests	Moschos Vogiatzis	Greece
	Forest Atlas Of The United States	Charles Perry	United States
	Bringing The Science Back Into Literature Reviews Of Science	Gillian Petrokofsky	United Kingdom

#### // FOREST BIODIVERSITY AND ECOSYSTEM SERVICES

B-01 (139) The Future Of Ecosystem Services From Forests			
Room:	150 D		
Organizers:	William Nikolakis & John Innes (University of British Columbia, Canada)		
Moderators:	John Innes		
Description:	The session will focus on how the emergence of forest ecosystem services will re-shape forests and forest research, with particular focus on the design of such systems and their effect on human communities and the landscape.		
	Direct And Functional Economic Value Marginal Effects Of Tropical Forest Conversion To Cacao Agroforestry Systems	Elizabeth Asantewaa Obeng	Ghana
	What Is Needed To Make Markets For Forest Ecosystem Services A Reality?	David Brand	Australia
	The Future And Legitimacy Of Forest Ecosystem Services Schemes For Indigenous Peoples: Insights From Clayoquot Sound, British Columbia	Harry Nelson	Canada
	Current And Future Provision Of Ecosystem Services In European Mountain Forests	Manfred J. Lexer	Austria
	Future Payment For Forest Environmental Services: Lessons Learned From Vietnam	Phuong Vu Tan	Viet Nam
	Designing Payments For Environmental Services Programmes	Sven Wunder	Brazil
	Biodiversity Offsetts: Delivering Additionality To The Conservation Woodlands In Italy?	Ariadna Chavarria Resendez	Italy
	Institutions And Natural Resource Management: Exploring Payments For Ecosystem Services (PES) In The Context Of Decentralised Native Tree Planting In Lebanon	Arbi James Sarkissian	United Kingdom
	Integrating Ecosystem Services Into United States Forest Service Programs And Operations	Nikola Smith	United States

#### B-20 (77) Radioactive Contamination In Forest Ecosystems And Safe Uses Of Forest Products

Room:	155 F		
Organizers:	Masamichi Takahashi (Forestry and Forest Products Research Institute, Japan), Frédéric Coppin (Institut de Radioprotection et de Sûreté Nucléaire, France) & George Shaw (Nottingham University, UK)		
Moderators:	George Shaw and Frédéric Coppin		
Description:	This session will present current research on the impacts and long-term dynamics of radioactive fallout on forest ecosystems and countermeasures for rehabilitation of affected forest ecosystems and safe utilization of products derived from them.		
	Biogeochemical Cycling Of Radiocesium In Contaminated Forest Area: An Overview	Yves Thiry	France
	Distribution And Migration Of Radiocesium In The Forest Ecosystem After The Fukushima Dai-Ichi Nuclear Power Plant (NPP) Accident	Shinji Kaneko	Japan
	Modelling Of Radionuclides Transfer And Ambient Dose Rates In Fukushima Forest Ecosystems: A Preliminary Study	Marc-Andre Gonze	France
	Inside Contamination Of Japanese Cedar Tree By Radiocesium From Fukushima Nuclear Power Plant Accident	Hideki Ogawa	Japan
	Managing The Irradiated Forest Of The Chernobyl Exclusion Zone For Nature Conservation, Fire Protection, And Biomass Fuel Production	Sergiy Zibtsev	Ukraine

#### **Poster Presentations:**

10001					
	Radiocesium Contamination In Satoyama Forests In Kashiwa City, Suburb Of The Tokyo Metropolitan Area	Kenji Fukuda	Japan		
	Transport Of Cs In Japanese Bamboo -Perspective On Decontamination Of Radiocesium From Bamboo Forests	Mitsutoshi Umemura	Japan		
	Predominant Factor In The Depth Profile In Forest Soil Of Radiocesium, Released By The Fukushima Daiichi Nuclear Power Plant Accident	Yoshito Sasaki	Japan		
	Transportation Of Radiocesium From Forest To Agricultural Fields	Hirohisa Yoshida	Japan		
	Acquisition Of Radioactive Cesium In The Stems Of Trees In Japan	Tsutomu Takano	Japan		
	Seasonal Change Of Cesium 137 In Different Age Needles And Male Flowers Of Japanese Cedar (Cryptomeria Japonica) In Fukushima	Tsutomu Kanasashi	Japan		
	Accumulation Of Cs-137 By Higher Fungi After The Accident On The Chernobyl NPP	Nataliia Zarubina	Ukraine		
	Carrying Out Of Remediation Of Forest Soils With Use Of Fruit Bodies Of The Higher Fungi	Nataliia Zarubina	Ukraine		
	Radioactive Contamination Of Aquatic Animals In Stream Impacted By The Fukushima Nuclear Power Plant Accident	Mayumi Yoshimura	Japan		
	Radiocesium Inventory Of Forested Land In Japan Just Before Fukushima Daiichi Nuclear Power Plant Accident	Satoru Miura	Japan		
	Impact Of Forest Vegetation On Long Term Recycling Of Radionuclides At Polluted Sites	Yves Thiry	France		

#### // FORESTS AND CLIMATE CHANGE

## C-02 (193) From Understanding Drivers To Gaining Leverage At The Tropical Forest Margins: 20 Years Of ASB Partnership

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Room:	151 A			
Organizers:	Peter Akong Minang & Elizabeth Kahurani (World Agroforestry Centre, Kenya)			
Moderators:	Peter Akong Minang	Peter Akong Minang		
Description:	This session will discuss the evolution of theories and approaches to addressing the complex drivers of deforestation and forest degradation and the experiences of the ASB Partnership in order to draw lessons and define questions for further research.			
	Theories Of Change And Change In Theory Of Managing Landscapes Within The Past Twenty Years	Markku Kanninen	Finland	
	Theories Of Change And Change In Theory Within Twenty Years Of ASB Partnership For The Tropical Forest Margins	Meine van Noordwijk	Indonesia	
	Assessing The Drivers Of Forest Degradation And Forest Change In Tropical Dry Forest Landscapes: A Case Study In Western Mexico.	Lucía Morales	United Kingdom	
	Identifying Policy Levers Of Deforestation And Recovery Of Tree Cover From The Driver Analyses: A Case Study From Indonesia	Sonya Dewi	Indonesia	
	Potential For Reducing Deforestation Through Agricultural Intensification In Landscape Mosaics In Sub-Saharan Africa	Sara Namirembe	Kenya	

	Farmers' Learning Of Private And Common Values Of Conservation Contracts As Determinant For Performance-Based Of Landscape Rehabilitation	Beria Leimona Hairu	Indonesia
	Assessing Sustainability Of Swidden Systems In The Tropical Forest Margins	Martin Yemefack	Cameroon
C-13 Mode	ling And Simulation Systems		
Room:	151 D		
Organizers:	Grant Domke (U.S. Forest Service)		
Moderators:	Grant Domke		
Description:	This session will examine applications of large scale models and simulation systems for forest planning and management and for assessing the potential of climate change and mitigating strategies.		
	Considering Climate Change: Growth And Yield Forecasting Using Climate-FVS	Nicholas Crookston	United States
	New Tools For The Use Of Spatially-Explicit Forest Disturbance Data In The Estimation Of Forest Carbon Budgets Within North America	David Greenberg	Canada
	REDD Options As A Risk Management Instrument Under Policy Uncertainty And Market Volatility	Nikolay Khabarov	Austria
	Modelling The Economics Of The Reference Levels For Forest Management Emissions In The EU	Jani Laturi	Finland
	Exploring Economic Optimization For Managed Tropical Forests Using Individual-Based Modeling: An Exercise With Data From Quintana Roo, Mexico	Sebastian Palmas	Mexico
	Estimating The Fertility Rating Parameter Of The 3PG Model From Soil Properties, Application To Fucalyptus Globulus In Portugal	Margarida Tomé	Portugal

Soil Properties. Application To Eucalyptus Globulus In Portugal

## C-18 (49) Using Multi-Source Remotely Sensed Data And Nearest Neighbor Techniques To Improve Inference For Natural Resource Applications

Room:	150 C		
Organizers:	Temesgen Hailemariam (Oregon State University, USA)		
Moderators:	Temesgen Hailemariam		
Description:	This session will bring together research scientists and practitioners to exchange ideas related to some of the challenges and opportunities in using multi-source remotely sensed data and nearest neighbor techniques to improve inference for sustainable forest management.		
	A Monte Carlo Appraisal Of Four Different Interpolation Methods To Couple Remotely Sensed And Ground Data	Piermaria Corona	Italy
	Ensemble Approaches To The Nearest Neighbor Problem	John Coulston	United States
	Using Multi-Source Remotely Sensed Data And Nearest Neighbor Techniques To Improve Inference For Natural Resource Applications	Valerie LeMay	Canada
	Approaches For Estimating Stand And Tree-Level Variables For Use In Large Scale National Forest Inventories	Kyle Lochhead	Canada
	Variable Selection Strategies For Nearest Neighbor Imputation In Remote Sensing Based Forest Inventory	Petteri Packalen	Finland

Small-Area Estimation Across Large Areas Of Forest	Nan Pond	United States
Restricted Imputation For Improved Forest Scenario Analysis	Goran Stahl	Sweden
Imputations Using The Enhanced R Package Yalmpute: Bootstrapping, Ensembles, And A New Fit Statistic	Nicholas Crookston	United States

#### C-27 (79) Sustainable Management Of Spruce Dominated Ecosystems In Response To Climate Change

Room:	151 G			
Organizers:	Phil Comeau (University of Alberta, Canada), Bill Mason (Forest Researc of Agricultural Sciences)	ch, UK), Ulf Johannson & Bjorn	Hanell (Swedish University	
Moderators:	Phil Comeau			
<b>Description:</b> This session will include discussion of the potential impacts of climate change on the distriplanted spruce forests and silvicultural, policy and planning options that may be available for s			-	
	Environmental Control Of Growth Variation In Norway Spruce In Finland Harri Mäkinen Finland Finland			
	Canada			
	Long-Term Volume Increment, Ingrowth And Changes In The Stand Structure In Partially Harvested Uneven-Aged Norway Spruce Stands In Northern Sweden	Martin Ahlström	Sweden	
Mitigation Of Drought By Thinning: Short-Term And Long-Term Effects On Growth And Physiological Performance Of Norway Spruce (Picea Abies)		Julia Sohn	Germany	
	Ecophysiological Aspects Of Growing Douglas Fir In Central Europe	Josef Urban	Czech Republic	
	Use Of Continuous Cover Forestry Enhances Delivery Of Ecosystem Services And Adaptation To Climate Change In Sitka Spruce Planted Forests.	Bill Mason	United Kingdom	

#### // FORESTS AND WATER INTERACTIONS

#### D-04 (18) Hydroecological Studies In The Mediterranean Region

Room:	150 E		
Organizers:	Yusuf Serengil (Istanbul University, Turkey), Xiaohua Wei (University of Briti	sh Columbia, Canada) & Ferhat	Gokbulak (Istanbul University, Turkey)
Moderators:	Yusuf Serengil		
Description:	<i>cription:</i> The objective of this session is to evaluate long- and short-term studies in the Mediterranean region on hydrology–ecosystems interaction to better understand the effects of anthropogenic stressors in the region.		
	Bringing Water Quantification Into The Management Of Semiarid Forests: A Need For Implementing Adaptive Silviculture And Watershed Services Programs	Antonio D Del Campo	Spain
	Mediterranean Vegetation-Water Interactions: A Model Comparison At Different Scales	Alberto García Prats	Spain
	Thinning Effect On Monthly Runoff In A Forested Watershed	Ferhat Gokbulak	Turkey

	Improvement Of Forest Management Towards Optimizing Water Production In Marmara Region Of Turkey	Yusuf Serengil	Turkey
	Timber Harvest Effect On Selected Physical Water Characteristics In A Forested Watershed	Betül Uygur	Turkey
D-07 (36) lı	npacts Of Forest Roads On Water Resources And Aquati	ic Habitat	
Room:	150 A		
Organizers:	Charles Luce (U.S. Forest Service) & Artemio Cerdà (University of Valèn	icia, Spain)	
Moderators:	Charles Luce & Carlos E. Ramos Scharrón (University of Texas, USA)		
Description:	This session reviews the latest science on runoff generation, surface e mitigation treatment effectiveness, and how these affect aquatic habita		formation, sediment delivery,
	An Unusual Suspect- The Threat Posed By Unpaved Roads To Coral Reefs Of The Eastern Caribbean	Carlos Ramos-Scharron	United States
	The Relationship Between Forest Roads And Aquatic Habitat Conditions In Western Montana, USA	Tom Black	United States
	Plot-Scale Hydro-Geomorphological Response On Gravelly Roadbed, A Case Study From Southern Brazil	Edivaldo Thomaz	Brazil
	GRAIP-Lite: A Tool For Large Scale Assessment Of Road Erosion	Nathan Nelson	United States
	Road Sediment Production And Delivery: Effects Of Management Activities And Climate Change	Lee MacDonald	United States
	Assessing Controls On Sediment Delivery From Forest Roads	Charles Luce	United States
Poster Presei	ntations:		
	Monitoring The Hydrologic And Geomorphic Effects Of Forest Road Decommissioning And Road Improvements	Tom Black	United States
	The Impact Of Ground Based Timber Harvesting On Soil Hydrophysical Properties: A Case Study In Hyrcanian Forest	Elyas Hayati	Iran
	Water And Sediment Behavior On Rolled Grade Roads	Hiroko Muneoka	Japan
	Quantification And Modeling Of Foot Trail Surface Erosion In A Dry Sub-Tropical Forest Setting In The Eastern Caribbean	Carlos Ramos-Scharron	United States
	Effectiveness Of Road Decommissioning	Gabriel Sosa-Perez	United States
	Quantitative And Qualitative Investigation Of Road Construction Standards In Arasbaran Forest, Iran	Manije Talebi	Iran

#### // FOREST BIOMASS AND BIOENERGY

E-05 (243) Global And Regional Deployment Of Biomass & CCS (BECCS): Reconciling Top-Down And Bottom-Up Approaches And REDD+BECCS Nexus

Room:	150 F
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*Organizers:* Florian Kraxner (International Institute for Applied Systems Analysis, Austria); Sabine Fuss (Mercator Research Institute on Global Commons and Climate Change, Germany); Ruben Lubowski (Environmental Defense Fund, USA); Nathalie Walker (National Wildlife Federation, USA)

#### *Moderators:* Florian Kraxner & Sabine Fuss

## *Description:* This session aims at presenting and discussing the latest research on combining bioenergy with carbon capture and storage (BECCS), its important potential co-benefits as well as risks for e.g. the conservation of biodiversity, and to identify possible (funding) synergies and challenges from the REDD+/BECCS nexus.

Principles Of BECCS - Regional And National Case Studies – Assessing The Potentials	Florian Kraxner	Austria
Balancing Risks And Regret From Climate Policy Uncertainties: The Role Of REDD And Other Near-Term Opportunities	Ruben Lubowski	United States
BECCS+REDD: Synergies Between Bioenergy-Based Climate Change Mitigation Options And Reducing Emissions From Deforestation	Sabine Fuss	Germany
The Potential Of REDD+BECCS Nexus For Selected Provinces In Indonesia	Manahan Parlindungan Saragih	Indonesia
BECCS Use And Sustainability Of The Land-Use In Mitigation Pathways	Etsushi Kato	Japan

#### // FORESTS AND FOREST PRODUCTS FOR A GREENER FUTURE

#### F-02 (181) The Interface Between Quantitative Forest Sector Modeling And Policy Analysis: What Can Be Improved?

Room:	151 B			
Organizers:	Birger Solberg (Norwegian University of Life Sciences), Daniela Kleinschmit (Swedish University of Agriculture Sciences) & Clark C. Binkley (International Forestry Investment Advisors, USA)			
Moderators:	s: Birger Solberg			
<b>Description:</b> This session will explore the strengths and weaknesses of using forest sector models in policy analyses, recent method improvements and pending needs in forest sector modelling, and the scope for improvement in the interface between p and forest sector modeling.				
	A Long Term Analysis Of The Potential Of Swedish Forests To Satisfy Sector Demand Sweden			
Future Of The European Forest-Based Sector: Combining Forest Sector Models With Foresight AnalysisLauri HetemakiThe Linkage Between Environmental Policies And International Trade In Pulp And Paper IndustryJaana Korhonen		Finland		
		Jaana Korhonen	Finland	
	A Model Of Timber Supply In Finland	Jussi Lintunen	Finland	
	Improving Forest Sector Model Inputs On Wood Supply Through European Forestry Dynamics Model (EFDM)	Tuula Packalen	Finland	
	Support To Forest Policy Analysis In The European Union Through The Forest Information System For Europe (FISE)	Peter Vogt	Italy	
	Scenario Generation For Future Development Of Forested Landscapes – Linking Practice And Policy Through Foresight And Modelling	Ida Wallin	Sweden	
	Modelling For Adaptive Forest Management Under Climate Change In Europe	Rasoul Yousefpour	Germany	

#### F-14 Forestry For Desired Wood Quality And Products From Underutilized Forest Species

Room:	151 C

Organizers: Andrew Wong (Universiti Malaysia Sarawak, Malaysia) & Pekka Saranpää (Finnish Forest Research Institute)

Moderators: Robert Deal & Andrew Wong

*Description:* This session considers the potential of hitherto lesser-utilized wood species for forestry and that would yield useful products.

Growing High-Value Native Hardwoods In Hawaii	
Mechanical Characterization Of Quercus Spp. Mexican Wood By Nondestructive Methods Mariana Ramírez-Pérez Mexico	
Indian Sandalwood (Santalum Album Linn.), An Important Bio- Resource Of India And Its Scope In Greening India Sundararaj Ramachandran India	
High-Value Lesser Known Timber Species From Secondary TropicalAngela CristinaDry Forests In ColombiaParedes Alvarado	

#### // FOREST HEALTH IN A CHANGING WORLD

#### G-08 (153) Consequences Of Changing Trophic Interactions On Forest Insect Population Dynamics

<i>Room:</i> 151 E				
Organizers:	izers: Aaron S. Weed, Carissa F. Aoki & Nina K. Lany (Dartmouth College, USA)			
Moderators: Aaron Weed				
Description:	This session is focused on how climate change, nitrogen deposition, an effects on trophic interactions.	nd land use change can influen	ce forest insect abundance via	
	On How To Study The Effects Of Climate Change On Trophic Christer Bjorkman Sweden			
	Positive Direct Effects Of Increased Temperature On Forest Lepidoptera Are Outweighed By Negative Indirect Effects Of Predators And Food Quality	Nina Lany	United States	
	Population Dynamics Under Climate Change - Modeling The Interactions Between Predator And Prey	Tea Ammunét	Sweden	
	Effect Of Forest Fragmentation On Parasitism Of Forest Tent Caterpillar Through A Full Population Cycle	Jens Roland	Canada	
	Impacts Of Insect Host Diversity, Tree Species And Temperature On Parasitism Of The Eucalyptus Snout Beetle (Gonipterus Spp.) By Anaphes Nitens	Jeffrey Garnas	South Africa	
	Changing Climate Associated With Homogenization Of Forest Assemblages Of Boreal Ground Beetles (Coleoptera: Carabidae)	John Spence	Canada	

#### G-15 (191) Monitoring Emerging Threats To Forest Health In North America Across Regional To National Scales

Room:	250 A			
Organizers:	Borys Tkacz (U.S. Forest Service) & Kevin Potter (North Carolina State L	Jniversity)		
Moderators:	Moderators: Kevin Potter			
<b>Description:</b> This session will explore indicators of forest health trends from regional to national scales that are useful for across the landscape.			eful for monitoring change	
	Overview Of The USDA Forest Service Forest Health Monitoring National Program	Borys Tkacz	United States	

Using Vascular Plant Inventory Data To Derive Indicators Of Forest Health	Bethany Schulz	United States
The Influence Of Climate Gradients And Climate Change On Nitrogen Sensitive Lichen Species Across Forests Of Oregon, Washington, And California	Sarah Jovan	United States
Primary Drivers Of Forest Regeneration Dynamics In The Eastern US	Christopher Woodall	United States
From Local To National: Mining And Transformation Of Local Urban Forest Inventory Data For Use In National-Scale Monitoring And Assessments	Mark Ambrose	United States
Mechanisms Of Rapid Synchronization In Gypsy Moth Populations	Derek Johnson	United States
Is The Western United States Running Out Of Trees?	John D. Shaw	United States
Comparison Of Tree Mortality Rates On Reserves vs Non-Reserved Land The Interior West Using Forest Inventory And Analysis Annual Inventory	Michael Thompson	United States
Data, Data Everywhere: Detecting Spatial And Temporal Patterns In Fine-Scale Forest Health Information Collected Across A Continent	Kevin Potter	United States

#### G-18 (172) Research On Pathway Risk Management And Phytosanitary Policy To Prevent Invasions Of Forest Insects And Pathogens

Room:	151 F		
Organizers:	Eckehard Brockerhoff (Scion, New Zealand), Andrew Liebhold (U.S. Fores	st Service) & Jolanda Roux (FABI	/University of Pretoria, South Africa)
Moderators:	Eckehard Brockerhoff		
Description:	This session will cover a wide range of current research on pathway ris risk of pest and disease introduction associated with international trade		tary policy aimed at reducing the
	Facilitating International Trade And Preventing Forest Pest Invasions: Progress And The Challenge Ahead	Eckehard Brockerhoff	New Zealand
	Effects Of ISPM-15 On Bark- And Wood-Infesting Insect Infestation Rates Of Wood Packaging Material	Robert Haack	United States
	Probability Of Pest Dissemination In Europe With Imported Wood Products: A Focus On Pine Wood Nematode And Oak Wilt Disease	Jacob Douma	Netherlands
	International Plant Trade Associated Risks: Laissez-Faire Or Novel Solutions?	Jarkko Hantula	Finland
	Plant Smuggling – A Pathway For Invasions By Damaging Non-Native Forest Insects And Pathogens	Andrew Liebhold	United States
	Designing Cost-Effective Inspection Programs And Phytosanitary Policy For Reducing Pest Risk From Live Plant Imports	Rebecca Epanchin-Niell	United States
Poster Prese	ntations:		
	Allee Effects And The Establishment Of Exotic Invasive Bark Beetles	Eckehard Brockerhoff	New Zealand
	Megastigmus Parasitism Of North American Cupressaceae	Jean-Noel Candau	Canada
	Nurseries As Pathways For Phytophthoras To Enter The Turkish Forests	Tugba Dogmus-Lehtijarvi	Turkey
	The Use Of EDDMapS To Monitor The Range Extension Of Two Invasive Insect Species In Hungary	Katalin Tuba	Hungary

### Poster Information (located in Hall 1)

IUFRO Division	Poster Number	Title	Presenter	Country	Abstract ID
D1					
D1	001	Strategies and practices to grow non-wood forest product species in degraded hilly area of southern China	Zaizhi Zhou	China	442
D1	002	Assisted natural regeneration in degraded dry monsoon forests with the participation of rural people in Sri Lanka	Bandumala Suduhakuruge	Sri Lanka	910
D1	003	Evaluation of the vegetation and proposal of species for rehabilitation of the patrimonial area "Necropolis Cristóbal Colón" in the Havana, Cuba	Marta Marina Jiménez Águila	Cuba	2171
D1	004	Traditional silviculture through butea monosperma: a multipurpose tree species in Balaghat, India	Pratibha Bhatnagar	India	2422
D1	005	Agroforestry systems to rehabilitation forest vocation lands in Michoacán, México	Guadalupe Geraldine García	Mexico	335
D1	006	Recovering degraded forest area using agroforestry practice: case study on area of former Mount Batur eruption, Bali (Indonesia)	Budi Hadi Narendra	Indonesia	1164
D1	007	Evaluation of tree species for agroforestry development in the Sudan Sahel region of Nigeria	loryisa Verinumbe	Nigeria	906
D1	008	Ecological complexity, stand basal area and rooting intensity respond differently under edaphic drought in ecotones at abandoned coppice forests	Tamalika Chakraborty	Germany	2677
D1	009	Potential production of short rotation coppice willow in Denmark	Søren Larsen	Denmark	1217
D1	010	Eucalypt coppice management for rurally based, small-scale timber growers in South Africa	Keith Little	South Africa	2588
D1	011	Sycamore maple (Acer pseudoplatanus L.) potential for coppicing: A case study	Valeriu-Norocel Nicolescu	Romania	2149
D1	012	The effect of harvesting on stump mortality and re-sprouting in aged oak coppice forests	Patrick Pyttel	Germany	2011
D1	013	Hybrid aspen coppice forest for energy in hemiboreal Estonia	Hardi Tullus	Estonia	2019
D1	014	A forest for all - management for multiple uses	Petter Axelsson	Sweden	2961
D1	015	The Cuban experience within integrated forest farms: the case of "La Aurora", municipality of San Cristobal, Artemisa Province, Cuba	Efrain Alejandro Calzadilla Zaldivar	Cuba	2209
D1	016	Experimental forests: An anchor in a changing scientific world	Warren Moser	United States	3758
D1	017	Biodiversity and ecosystem services project in Cambodia	Bunnath Khun	Cambodia	529
D1	018	How tree-fall gaps characteristic approaching to ecological forestry? (Case study: a virgin Hyrcanian forest, north of Iran)	Saeed Rahbari Sisakht	Iran	1379
D1	019	The evolution of forests in Israel – from monocultural forest to uneven-age, mixed-species forests that designated for provision of ecological services	David Brand	Israel	3162
D1	020	Assessment of nitrogen fertilization of a managed douglas-fir forest stand in the Pacific Northwest and the application in sub-Saharan Africa	Tolulope Daramola	Nigeria	27
D1	021	Enrichment of restored forests with Euterpe edulis Martius (Arecaceae): the soil water deficit limits its successful establishment	Vera Lex Engel	Brazil	3380
D1	022	Seed rain assessments and forest plantations composition in sites undergoing restoration in Brazil	Vera Lex Engel	Brazil	3519

D1	023	Restoration of endemic dwarf pine (pinus culminicola) populations in North Mexico	Javier Jimenez	Mexico	1188
D1	024	Study on seeding regeneration potential of Taiwan Beech (Fagus hayatae) in Northeastern Taiwan	Shu Tzong Lin	China-Taipei	576
D1	025	Assessing the outcomes of ecological restoration by afforestation along a new high-speed railway in north-western Italy	Fabio Meloni	Italy	2547
D1	026	Restoring old-growth features to managed forests in the eastern Italian Alps	Renzo Motta	Italy	2561
D1	027	Effect of soil condition improvement on Calliandra calothyrsus and Antidesma bunius growth in Batur Mountain Conservation Area, Bali (Indonesia)	Budi Hadi Narendra	Indonesia	1122
D1	028	Selection of appropriate legume cover crop in reforestation of former tin mining overburden in Bangka Island, Indonesia	Budi Hadi Narendra	Indonesia	1825
D1	029	Management determination by silvicultural groups in restoration plantings in the Brazilian Atlantic Forest	Liz Ota	Brazil	3683
D1	030	Future strategies for restoration of ridge-mountains at Baekdu Daegan in the Republic of Korea	Yeong Dae Park	Republic of Korea	1577
D1	031	Management of natural regeneration of Spanish elm (Cordia alliodora R. & P.) for the purpose of forest restoration of dry forests of Colombia	Nathaly Rodríguez Santos	Colombia	336
D1	032	The fire ecology of American Chestnut regeneration: implications for restoration	Mike Saunders	United States	2936
D1	033	Identification of degradation levels of dry evergreen forests for restoration in Sri Lanka	Bandumala Suduhakuruge	Sri Lanka	598
D1	034	The vegetation recovery of tropical rain forests under different commercial logging manners on Hainan Island, China	Yi Ding	China	224
D1	035	Impact of logging operations on the remnant forest of a humid tropical forest in the Imataca forest reserve, Venezuela	Néstor Gutierrez	Venezuela	2734
D1	036	Eucalyptus stocking and soil preparation in a frontier region at north of Brazil: necessity of changing concepts from traditional regions	Rodrigo Hakamada	Brazil	2261
D1	037	18 years of post-logging recovery in a mixed dipterocarp forest Sabah, Borneo: evaluation of modified RIL and climber cutting	Daniel Lussetti	Sweden	2143
D1	038	Development of Pericopsis elata's seedling around seed bearer in a logging forest of South East Cameroon	Nnanga Mebenga Ruth Laure	Cameroon	3383
D1	039	Testing a silvicultural recommendation: Brazil nut responses 10 years after liana cutting	Karen Kainer	United States	1271
D1	040	Characteristics, structure, and tree species diversity of a tropical exploitation forest after 40 years of regeneration	Franziska Schier	Germany	3341
D1	041	Steniscadia poliophaea (Noctuidae) is a major seedling herbivore of big-leaf mahogany trees in Amazonian forests	Chris Free	United States	2145
D1	042	Cedrela montana in tropical montane rain forests of South Ecuador: key species for sustainable management and conservation of biodiversity hotspots	Sven Guenter	Costa Rica	253
D1	043	Restoration of high-value broadleaved forests in southern Sweden: Synergistic effects on biodiversity and economy	Magnus Löf	Sweden	1202
D1	044	Can monoculture forest plantation harbor biodiversity similar to naturally regenerated tropical rainforest ecosystems over time?	Jonathan Chukwujekwu Onyekwelu	Nigeria	1511

D1	045	Growth and productivity of Khaya grandifoliola in the dry semi- deciduous forest of Ghana: a comparison in pure and in diverse species stands	Emmanuel Opuni Frimpong	Ghana	1975
D1	046	Single-tree management for high-value timber species in a mixed conifer-hardwood forest in northern Japan	Toshiaki Owari	Japan	2382
D1	047	Comparison of species composition and stand structure between a secondary forest and a mahogany plantation on Mt. Makiling	Pil Sun Park	Republic of Korea	1649
D1	048	Growth and stem quality of oak trees established in cluster plantings respond differently to intra- and interspecific neighbourhood competition	Somidh Saha	Germany	1514
D1	049	Landscape patterns in mountain pasture-woodlands under changing environmental conditions	Harald Bugmann	Switzerland	1059
D1	050	Why bank on ban on felling for managing mountain forests sustainably?	Promode Kant	India	1449
D1	051	Advanced oak seedling development as influenced by shelterwood treatments, competition control, deer fencing, and prescribed fire	Kurt Gottschalk	United States	3318
D1	052	Dominance probabilities for oak seedlings in Pennsylvania: variation in seedling size and ecological sections affects seedling success	Gary Miller	United States	3353
D1	053	Epicormic potential of common eastern North American oak species	Mike Saunders	United States	2963
D1	054	Linking ecosystem service tradeoffs with perceived benefits from reforestation in human-modified tropical landscapes	Oscar Abelleira Martinez	Costa Rica	2474
D1	055	Evaluation of natural regeneration of woody plants in a mixed plantation of tree species	Manuel Marino Enciso Gomez	Paraguay	2002
D1	056	Provenance trial of Shorea leprosula miq. in Palembang, South Sumatra, Indonesia.	Ade Ayu Dewayani	Indonesia	2061
D1	057	Short-term responses of saproxylic insects to different types of forest restoration	Joakim Hjälten	Sweden	3026
D1	058	How can Macrotermes termites provide ecosystem services in a savanna woodland in Burkina Faso, West Africa?	Saran Traoré	Burkina Faso	617
D1	059	The influence between morphological plasticity and biomass allocation on two provenances of Abies holophylla seedlings under different nitrogen fertilization regime	Yuan Chai	China	1830
D1	060	Lateral root distribution of Eucalyptus camaldulensis and Eucalyptus pellita under different tree spatial arrangements	Geraldo G. Reis	Brazil	2642
D1	061	Precipitation frequency controls interannual variation of soil respiration in a subtropical forest	Huimin Wang	China	2700
D1	062	Wood carbon storage in a semidecidual seasonal secondary fragment in the Atlantic forest domain, in Brazil, over 20 years	Maria G. Ferreira Reis	Brazil	2684
D1	063	Water deficit is a good predictor of maximum stocking in Eucalyptus clonal plantation in Brazil	Rodrigo Hakamada	Brazil	2263
D1	064	The relationship between replanted tree growth and frequency of bush clearing in replanted Sugi (Cryptomeria japonica) forests	Fumiaki Kitahara	Japan	569
D1	065	European beech trees have developed an adaptive strategy of survival through crown die-back under stress of drought and plant competition	Tamalika Chakraborty	Germany	3331
D1	066	Silver fir (Abies alba Mill.) - native or alien tree species in the north Poland	Dorota Dobrowolska	Poland	1363
D1	067	Responses in physiology and growth of minor central European tree species to drought events	Jörg Kunz	Germany	2964
D1	068	Which management under climate change? An assessment of the provisioning of ecosystem services in mountain forests	Harald Bugmann	Switzerland	2510

D1	069	Initial effects of crop tree release treatment on carbon stocks in a southern China Chinese fir plantation	Yixiang Wang	China	3816
D1	070	Development and dynamics of young aspen-spruce mixedwood stands in western Canadian boreal forests	Philip Comeau	Canada	1559
D1	071	Introduction of adaptable tree species to arid climate in Iran (Case study: Fars Province, Darab)	Fatemeh Azhdari	Iran	3153
D1	072	Implementation of sustainable agroforestry in Mongolia	Hyun-Kil Jo	Republic of Korea	765
D1	073	Effects of soil amendments on survival rate and growth of Populus sibirica and Ulmus pumila seedling in a semi-arid region, Mongolia	Yowhan Son	Republic of Korea	1124
D1	074	Growth characteristic of Ulmus pumila L. seedlings from different seed sources in Mongolia	Enkhchimeg Tsedensodnom	Mongolia	2327
D1	075	Salt tolerance of Ulmus pumila L seedlings from geographically different seed sources	Enkhchimeg Tsedensodnom	Mongolia	2338
D1	076	Technology model of alpine sand lands controlling on the China Tibetan Plateau	Xuequan Wang	China	1334
D1	077	Newly transplanted Larix olgensis Henry stock with greater root biomass has higher early nitrogen flux rate	Xingyuan He	China	1149
D1	078	Sustainable Energy for coffee benefited from wood energy plantations Coopetarrazú	Edwin Esquivel	Costa Rica	2275
D1	079	Mixed-species plantations of Eucalyptus and Acacia mangium as an alternative for bioenergy production in tropical regions	Rodrigo Hakamada	Brazil	2281
D1	080	Bioenergy and fiber use of bamboo biomass from small-scale plantations in Thailand	Maliwan Haruthaithanasan	Thailand	2567
D1	081	Short rotation forestry in Bavaria (Southern Germany): results of a survey of operators	Sebastian Hauk	Germany	307
D1	082	Short-rotation forestry with hybrid aspen in hemiboreal Estonia: implications for forest management, science and society based on 15-year experience	Reimo Lutter	Estonia	898
D1	083	Growth and nutrient dynamic of plantation forest of Eucalyptus hybrid as raw material for pulp industry in Indonesia	Nina Mindawati	Indonesia	209
D1	084	Initial yield of biomass production in wood energy plantations in the Guanacaste province, Costa Rica	Sara Molina	Costa Rica	826
D1	085	The effect increasing biomass demands on forest management in Central Europe	Christina Schumann	Germany	1861
D1	086	Selecting cold-hardy Eucalyptus species for the Southeastern United States using a region-wide network: 4 years-results	Jose Stape	United States	3681
D1	087	Improvement of soils conditions to increase productivity of Tectona grandis in Northern Costa Rica: established plantations	Elemer Briceño	Costa Rica	587
D1	088	Pointing the sustainability and profitability of Eucalyptus 2 years rotation for biomass production: study case in Brazil	Rodrigo Hakamada	Brazil	2266
D1	089	Effects of repeated whole-tree harvesting on soil properties and tree growth in a Norway spruce (Picea abies (L.) Karst.) stand	Lilli Kaarakka	Finland	446
D1	090	Short-term effects of whole tree and stem-only harvesting on C and N fluxes in two Picea abies stands, Norway	0. Janne Kjønaas	Norway	2628
D1	091	Effects of different harvesting intensities on the macro nutrient pools in aged oak coppice forests	Patrick Pyttel	Germany	1943
D1	092	Trade-offs between utilising fine woody debris and minimizing rotation time in hybrid poplar plantations	Melanie J. McCavour	Canada	2166
D1	093	Effects of organic matter removal and nitrogen and carbon leaching fluxes in Douglas-fir plantation	Marcella Menegale	United States	2391

D1	094	The carbon balance in forest fuels from long rotation forestry: the outcome is in the assumptions	Gustaf Egnell	Sweden	2466
D1	095	Dendroenergetic analyses of Acacia mearnsii De Wild. culture	Ana Paula Dalla Corte	Brazil	1549
D1	096	Use of lignocellulosic biomass as biofuel: a key for sustainable future	Vindhya Prasad Tewari	India	98
D1	097	Surveillance of bamboos species in an experimental plantation in Southern Brazil	Adalberto Novaes	Brazil	3119
D1	098	Vegetative propagation of two bamboo species in Southern Brazil	Adalberto Novaes	Brazil	3155
D1	099	Harvesting and coppice management of Beta vulgaris (bamboo) in protected and unprotected areas	Edward D. Wiafe	Ghana	278
D1	100	Specific gravity-driven southern pine silviculture: an opportunity to improve ecosystem services and multifunctional forests	Don Bragg	United States	940
D1	101	Sustained yield forestry in Sweden and Russia: how does it correspond to sustainable forest management policy?	Marine Elbakidze	Sweden	2048
D1	102	Long-term response of natural-origin even-aged southern pine to early competition control and density management in Arkansas, U.S.A.	Andrew Nelson	United States	3107
D1	103	Growth reaction of a multiple use species (Tectona grandis L. F.) to pruning in the State of Rondonia, Brazilian Amazon	Michelliny Bentes Gama	Brazil	3569
D1	104	The technological properties of plantation grown mahogany in Ghana: are they inferior to naturally grown ones?	Emmanuel Opuni Frimpong	Ghana	2841
D1	105	Height growth of Korean pine saplings planted under strip-cut larch plantations in northeast China	Toshiaki Owari	Japan	995
D1	106	Analysis of seedling production in forest nurseries in the Alto Paraná District of Paraguay	María Ysabel Perdomo Rolón	Paraguay	114
D1	107	Nutrient evaluation and DRIS diagnosis of young teak (Tectona grandis L.f.) plantations in acid soil in South China	Zaizhi Zhou	China	441
D1	108	Effects of nitrogen deposition on growth and phosphate efficiency of Schima superba of different provenances grown in phosphorus- barren soil	Rui Zhang	China	69
D1	109	Natural regeneration in Mediterranean pines forests: a conceptual approach under climate change	Teresa Fonseca	Portugal	3198
D1	110	Effect of nitrogen fertilization on morphological parameters Balmasocarpon brevifolium, Oxalis gigantea and Balbisia peduncularis: xerophytic species of importance in arid zones of Chile	Jose Hernandez	Chile	3402
D1	111	The characteristics of seedlings occurrence by different regeneration methods in a natural Pinus densiflora stand of South Korea	Jaehong Hwang	Republic of Korea	1432
D1	112	Variations in early seedling growth of Quercus acutissima in strip cut Larix kaempferi plantation	Jaehong Hwang	Republic of Korea	2287
D1	113	The comparison of early growth of Pinus koraiensis seedlings in harvested deciduous and evergreen coniferous plantations	Jaehong Hwang	Republic of Korea	2290
D1	114	Phenology observation of Macaranga tanarius in four regions in peninsular Malaysia	Rosdi Koter	Malaysia	2720
D1	115	Variations of vegetation biodiversity in wild pistachio forest among different altitudinal levels- Case Study	Mohammadreza Negahdarsaber	Iran	196
D1	116	Characterizing aspen regeneration by presence of ungulates, topography, and tree species composition	Aaron Rhodes	United States	3579
D1	117	Variation throughout the year of N2-fixation of Acacia mangium in pure stand or in association with Eucalyptus grandis	Ranieri Ribeiro Paula	Brazil	3570
D1	118	Environmental limitations to natural regeneration in a restored seasonally dry tropical forest	Hathai Sangsupan	United States	3601

D1	119	Successional dynamics of community structure and species diversity after clear-cutting of Abies faxoniana forest stands	Zuomin Shi	China	1607
D1	120	Examining native and exotic Pinus taeda plantation spacing, resource availability and varietal effects using crown ideotypes	Timothy Albaugh	United States	3484
D1	121	Carbon contents in Acacia mearnsii De Wild. plantations	Ana Paula Dalla Corte	Brazil	1550
D1	122	Evaluation of the effectiveness of the use of bokashi on seedling quality of Balfourodendron riedelianum (Engl.) Engl (Guatambu)	Marias Lis Garcia	Paraguay	3129
D1	123	Enhancing mine and energy crop soils to promote willow and poplar growth using ash and biosolids: a greenhouse trial	Nichola Gilbert	Canada	3750
D1	124	Volume or biomass? Evaluating trade-offs in aboveground live tree growth across a range of wood density in temperate forests of the eastern US	Christopher Woodall	United States	124
D1	125	Teak (Tectona grandis Linn.f) biomass and carbon stocks in FIO Thong Pha Phum Plantation, Western Thailand	Sapit Diloksumpun	Thailand	2296
D1	126	Growth, biomass accumulation and functionality of Gmelina arborea (L.) Roxb, in climate change scenarios for Colombia	Omar Melo Cruz	Colombia	206
D1	127	Tropical dry forests above-ground biomass measurements in West Africa, Abdoulaye Wildlife Reserve (Togo)	Hodabalo Pereki	Germany	1014
D1	128	Growth response of Moringa oleifera ( lam) seedlings to organic and inorganic fertilizers on an alfisol in South-Western Nigeria	Olubunmi Adejoh	Nigeria	369
D1	129	Assessment of current woody species and potentially candidate for forest exploitation: implication for reforestation system improvement in Benin	Hugues Akpona	Benin	738
D1	130	Fate of applied 15N fertilizer in a Douglas-fir Plantation	Stephani Michelsen- Correa	United States	3305
D1	131	Effects of artificial pruning on growth in young plantations of Nothofagus in South-central Chile	Daniel Soto	United States	3143
D1	132	Carbon storage capacity of monoculture and mixed-species plantations in subtropical China	Youjun He	China	1475
D2					
D2	001	Genetic admixing of two evergreen oaks, Quercus acuta and Q. sessilifolia (subgenus Cyclobalanopsis), is the result of frequent interspecific hybridization	Ichiro Tamaki	Japan	1430
D2	002	Multipurpose trees as tools for ecosystem services deployment: a case study in Uruguay	Zohra Bennadji	Uruguay	1714
D2	003	Genetic characterization of marginal pedunculate oak populations adapted to xeric conditions: implications for conservation and sustainable management	Alexandru Lucian Curtu	Romania	2240
D2	004	Management of Cedar (Cedrela odorata L.) by means of in vitro propagation techniques	Miladys Delgado	Cuba	2900
D2	005	Genetic diversity and population structure of Himalayan Cedar (Cedrus deodara) in Western Himalayas determined with cpSSR markers	Harish Ginwal	India	651
D2	006	Nuclear population structure of the Austrian Picea abies population	Heino Konrad	Austria	2490
D2	007	Male sterilization of Cryptomeria japonica by the barnase/barstar system	Manabu Kurita	Japan	1568
D2	008	Discovery of genic microsatellite markers from transcriptome sequences of Eurycoma longifolia root	Chai Ting Lee	Malaysia	3099
D2	009	Morphological assessment of Parkia biglobosa accessions from different agro ecological zones in Nigeria	Quadri Onilude	Nigeria	2354

D2	010	Genetic variation at microsatellite markers in four North American Quercus species	Sandra A Owusu	United States	3640
D2	011	An association mapping approach using ISSRs and AFLPs to identify molecular markers for resin yield in Pinus roxburghii Sarg	Anita Rawat	India	1733
D2	012	Genetic evaluation of Pinus roxburghii genotypes varying in resin yield using microsatellite markers	Anita Rawat	India	2849
D2	013	Identification of Ganoderma species associated with Acacia cyclops mortality in the Western Cape region of South Africa	Jolanda Roux	South Africa	1755
D2	014	Genetic diversity of Quercus ilex L. as a tool for retracing the dynamics of the Mediterranean forest ecosystems	Fabio Salbitano	Italy	3458
D2	015	Annual climate variation shapes adaptive seedling characters: A contribution to the adaptation of trees to future climates?	Silvio Schueler	Austria	3033
D2	016	Conservation monitoring of Erythrina velutina in riparian forest area	Renata Silva Mann	Brazil	1092
D2	017	Genetic diversity and evolutionary relationship of Dyera costulata and Dyera lowii in Jambi, Indonesia based on AFLP markers	Ulfah J. Siregar	Indonesia	2073
D2	018	Genetic diversity and relation of Zoysiagrasses (Zoysia spp.) native to South Korea	Byungoh Yoo	Republic of Korea	1596
D2	019	The effect of plus tree selection to the genetic diversity of two Acacia mangium seedling seed orchards in Indonesia	Vivi Yuskianti	Indonesia	1683
D2	020	Genetic diversity and differentiation within three species of the family Lauraceae in southeast China	Rui Zhang	China	68
D2	021	Genetic diversity of natural populations of endangered Ormosia hosiei, endemic to China	Rui Zhang	China	70
D2	022	Temporal and spatial variability of soil carbon flux in longleaf pine forests in the southeastern United States	Althea ArchMiller	United States	405
D2	023	454 Pyrosequencing analyses of mountain forest soils reveal a high fungal diversity and a rapid response to successional stages	Nicola La Porta	Italy	3142
D2	024	"Shelterbelts system of agroforestry" – improves microclimate, crop yields, carbon sequestration, mitigate climate change in dry land ecosystem of peninsular India	Shivanna Honnurappa	India	1983
D2	025	Planned burning vs. wildfire impact on soil methane flux – implications for forest fire management	Stefan Arndt	Australia	2299
D2	026	Genome-wide effects of selective breeding on adaptation of reforestation seedlots for future climates	lan MacLachlan	Canada	3609
D2	027	Selection of poplar clones to combat desertification in Inner Mongolia, China	Wonwoo Cho	Republic of Korea	1583
D2	028	The assessment of Populus spp. and Ulmus pumila for combating desertification in Mongolia	Myeong Ja Kwak	Republic of Korea	2370
D2	029	Effect on chlorophyll fluorescence in seedlings of four families of Pinus leiophylla under drought and recovery	Natalia Castelán Muñoz	Mexico	319
D2	030	Evaluating the water use efficiency of selected plantation species in the Philippines	Marilyn Combalicer	Philippines	1477
D2	031	Effect of drought on physiological and growth processes of selected beech and spruce provenances in Central Europe	ubica Ditmarová	Slovakia	1868
D2	032	Seasonal and diurnal water relations in four native shrubs, Northeastern Mexico	Humerto Gonzalez Rodriguez	Mexico	434
D2	033	The influence of drought on the density of different softwood species and provenances grown in Eastern Austria	Michael Grabner	Austria	1922
D2	034	Lateral root and shoot formation in Rhizophora stylosa Griff. (Rhizophoraceae) geared towards effective mangrove conservation and management in the Philippines	Nelson Manguiat Pampolina	Philippines	2702

D2	035	Slow release fertilizer and mycorrhizal inoculum potential effective for Acacia mangium under nursery conditions	R.T. Aggangan	Philippines	1306
D2	036	Assessing variability and divergence of Jatropha curcas Linn. germplasm under ex-situ conditions	Divakara Baragur	India	574
D2	037	Effects of exogenous GA3 application on growth and fiber quality of selected varieties kenaf (Hibiscus Cannabinus L) plants	Md. Aktar Hossain	Malaysia	2027
D2	038	Somatic embryogenesis in Hyeronima alchorneoides (Euphorbiaceae) from zygotic embryos	Alejandra Rojas	Costa Rica	709
D2	039	Wastelands rehabilitation by growing genetically improved Melia composita Willd	Shruti Sharma	India	2493
D2	040	Mycorrhiza enhanced growth and heavy metal tolerance of Acacia mangium, A. aulacocarpa and Swietenia macrophylla in mine waste soil	R.T. Aggangan	Philippines	1365
D2	041	Spatial expression analysis of developing xylem specific cellulose synthase gene from Eucalyptus tereticornis and its molecular characterization	Modhumita Dasgupta	India	843
D2	042	Isolation, characterization and expression profiling of two homeodomain-leucine zipper transcription factor genes in Eucalyptus tereticornis	Modhumita Dasgupta	India	1804
D2	043	Aspects and prospects of Eucalyptus improvement in India	Harish Ginwal	India	650
D2	044	Genetic linkage map development in eucalypts for abiotic stress tolerance	Yasodha Ramasamy	India	876
D2	045	Genetic diversity and breeding strategies for genetic improvement of Melia composita Willd	Shruti Sharma	India	1166
D2	046	Impact of biochar soil amendment on growth and physiology of tree saplings	Kamran Abdollahi	United States	3730
D2	047	Study on the soil nutrients limiting factors in Bambusa rigida forest land	Shuping Tu	China	2330
D2	048	Effect of silvicultural intensity and spacing on crown architecture of four loblolly pine clones	Eric Carbaugh	United States	3371
D2	049	Variation of stem growth and morphology traits of some pine hybrids in southern China and their correlations	Jingmin Jiang	China	950
D2	050	Eucalyptus in Orinoco Colombia, challenges and opportunities	Victor Nieto	Colombia	3677
D2	051	Species diversity effects on productivity and water use in a tropical tree plantation	Katherine Sinacore	United States	3357
D2	052	454 sequencing to assess the differential expression of genes due to ozone stress in Viburnum lantana L.	Nicola La Porta	Italy	2874
D2	053	Heritability of height and diameter for six-year-old Shorea leprosula	Mohd Zaki Abdullah	Malaysia	2846
D2	054	Sex ratio and status number in progenies test of dioecious tree species	Ananda Virginia Aguiar	Brazil	3479
D2	055	Effect of pre-treatment and sowing media on germination of Tetrapleura tetraptera (Schum. & Thonn.) seeds	Adejoke Akinyele	Nigeria	156
D2	056	Management of Cedar (Cedrela odorata L.) by means of in vitro propagation techniques	Miladys Delgado	Cuba	1978
D2	057	Micropropagation of Ruil (Nothofagus alessandrii): biotechnology applied for conservation and management of a threatened species	Rolando García	Chile	2028
D2	058	Long night treatment for induction of cold hardiness using artificial lights - effects of photoperiod on seedlings' storability and energy consumption	Marco Hernandez Velasco	Sweden	1762
D2	059	Provenance study of Cassia fistula L. for pod, seed and seedling traits	Shivanna Honnurappa	India	2473

D2	060	Propagation of Entada rheedii: a threatened climber species in Bangladesh with extremely thick and hard seed coat	Md. Aktar Hossain	Malaysia	2052
D2	061	Effects of irrigation period on growth performances and photosynthesis of container seedlings of Fraxinus mandshurica	Jaehong Hwang	Republic of Korea	1466
D2	062	The effects of CO2 transfer via sap flow and bark conductance on stem respiration	Masaaki Naramoto	Japan	2667
D2	063	Seedling emergence and growth of African locust bean (Parkia biglobosa R.Br. ex (G. Don) under different light conditions	Olufunke Olayode	Nigeria	2021
D2	064	Sustainable regeneration of African mahogany: The effects of potting mixtures on vegetative propagation of Khaya ivorensis and Khaya grandifoliola	Esther Mensah Opoku	Ghana	1240
D2	065	Impact of biochar on potting media for the rooting of Khaya ivorensis and Khaya grandifoliola leafy stem cuttings	Emmanuel Opuni Frimpong	Ghana	2007
D2	066	Genetic variation in natural and planted populations of Shorea guiso (Dipterocarpaceae) in the Philippines revealed by microsatellite DNA markers	Crusty Tinio	Philippines	2927
D2	067	Assessment of seed quality and mycoflora of Bauhinia retusa in different storage conditions	Manisha Thapliyal	India	1819
D2	068	Effects of open-field experimental warming using the infrared lamp on seed germination characteristics of major coniferous species in Korea	Jaehong Hwang	Republic of Korea	1463
D2	069	Investigating the interception of photosynthetically active radiation (PAR) among selected deciduous trees at Prairie Pines Preserve, Lincoln, NE	Humphrey Kalibo	United States	1519
D2	070	Nocturnal isoprene emission from deciduous trees in Japan	Takafumi Miyama	Japan	3756
D2	071	Effect of different watering regimes on germination and early seedling growth of Irvingia gabonensis var gabonensis	Felix Aya	Nigeria	3101
D2	072	Promoting heartwood formation of young trees of Santalum album by plant growth regulators	Xu Daping	China	1156
D2	073	Severity and control of foliar bacterial disease in Eucalyptus spp. seedlings according to the technological level in nurseries	Júlia Faria	Brazil	2256
D2	074	Cryopreservation of teak (Tectona grandis L.f.) seeds	Ana Hine	Costa Rica	486
D2	075	The effects of seed pre-treatment, media conditions for germination of Ricinus communis in in-vitro system	Hyeonsoo Jang	Republic of Korea	1668
D2	076	Provenance variation of growth and stem-form characteristics of Khaya senagalensis, and future improvement strategies in Sri Lanka	Bandara Ariyaratna Kangane Mudiyanselage	Sri Lanka	935
D2	077	Preliminary study of root penetration on degradable bioplastic-based planting pots	Kang Chiang Liew	Malaysia	272
D2	078	Predicting storage life and viability of melia volkensii seeds after extraction	Stephen Ndung'u	Kenya	2192
D2	079	Sustainable regeneration of African mahogany: the effects of potting mixtures on vegetative propagation of Khaya ivorensis and Khaya grandifoliola	Esther Mensah Opoku	Ghana	1085
D2	080	Variation in fibre dimensions and basic density of plantation grown African mahogany from three forest ecological zones of Ghana	Emmanuel Opuni Frimpong	Ghana	865
D2	081	Mass propagation of Korean raisin tree through veneer grafting	Youngki Park	Republic of Korea	2579
D2	082	ABTS radical scavenging activity from fruit water extracts of selected Korean wild pear species	Youngki Park	Republic of Korea	2601
D2	083	Transition wood age from early wood to late wood of Pinus radiata D. Don, in the Andean region of Cochabamba City, Bolivia	Evelin Sirpa Espinoza	Bolivia	673

D2	084	Rhizome macroproliferation - a new technique of propagating herb and fern	Anita Tomar	India	642
D2	085	A new approach to propagate Spondias pinnata without potting media	Anita Tomar	India	644
D2	086	Effect of soluble sodium silicate on wild Panax ginseng growth in red soil in Korea	Sora Lee	Republic of Korea	2552
D2	087	Ex situ germination behaviour of stored seeds of medicinal plants from Indian Himalayas	Manisha Thapliyal	India	2645
D2	088	Eucalypts in China: Research History, Present Situation of Breeding and Silviculture and Future Prospect	Jianmin Xu	China	2
02	089	The eco-physiological responses of Quercus variabilis seedlings to increased atmospheric CO2 and N supply	Lei Jingpin	China	193
D3					
D3	001	Wood harvesting rate, policies and cultural haulage methods in southwest Nigeria: implication on carbon sequestration	Victor Adekunle	Nigeria	3333
D3	002	Analyzing the potentiality and use of forest waste biomass in the production of clean energy in Nepal	Dharam Raj Uprety	Nepal	1871
D3	003	Simulator for the cost integral analysis of reforestation projects	José Ciro Hernández- Díaz	Mexico	1548
D3	004	A role for research in supporting small-scale emerging tree growers in South Africa	Sally Upfold	South Africa	2611
D3	005	A silvicultural practice to facilitate forest restoration – a new seedling cultivation technology for regeneration establishment	Marco Hernandez Velasco	Sweden	1761
D3	006	Natural regeneration management of "pau mulato" in Amazonian estuary floodplains forests	Marcelino Carneiro Guedes	Brazil	3393
D3	007	Species' grouping for timber management in Brazilian Eastern Amazon	Liz Ota	Brazil	3410
D3	008	Improved methods for timber extraction in South-West China	Dirk Jaeger	Germany	2779
D3	009	Effects of stand structure regulation on soil labile organic carbon under Pinus elliottii plantation	Yuan-qiu Liu	China	3591
D3	010	Spatiotemporal heterogeneity of water and root distribution and their impact on the slope stability in a mixed mountains forest	John Kim	France	3343
D3	011	How does the asymmetry of root system architecture modify soil strength and slope stability?	Zhun Mao	France	2064
D3	012	Thinning of Norway spruce stands under changing climate	Harri Mäkinen	Finland	1146
D3	013	Monitoring the hydrologic and geomorphic effects of forest road decommissioning and road improvements	Tom Black	United States	3295
D3	014	The impact of ground based timber harvesting on soil hydrophysical properties: a case study in Hyrcanian forest	Elyas Hayati	Iran	1637
D3	015	Water and sediment behavior on rolled grade roads	Hiroko Muneoka	Japan	1115
D3	016	Quantification and modeling of foot trail surface erosion in a dry sub- tropical forest setting in the eastern Caribbean	Carlos Ramos- Scharron	United States	733
D3	017	Effectiveness of road decommissioning	Gabriel Sosa-Perez	United States	3510
D3	018	Quantitative and qualitative investigation of road construction standards in Arasbaran forest, Iran	Manije Talebi	Iran	1478
D3	019	Optimizing biomass resource allocation for industrial and energetic utilization in the light of forest certification	Benjamin Engler	Germany	3326
D3	020	Energy biomass production with downy birch (Betula pubescens) on cutaway peatlands	Paula Jylhä	Finland	762
D3	021	Factors critical damage to the environment of the production chain of charcoal in Brazil	Fabrícia Menez Mota	Brazil	3689

D3	022	Amount and quality of residue biomass generated in forest harvesting systems for pine and eucalypt plantations in southern Brazil	Mateus Sanquetta	Brazil	1070
D3	023	A case study of wood fuel utilization by community forestry for sustainable, cost-effective management of local forest in Japan	Yasushi Suzuki	Japan	1178
D3	024	Soil impacts and forest operations in southeastern USA	Emily Carter	United States	3368
D3	025	Elemental composition in wood and different tree compartments on the quality of chips for fuel	Nicola La Porta	Italy	2966
D3	026	Estimating harvesting costs and projecting available amounts of logging residues with small-scale forestry in Nasushiobara City, Tochigi Prefecture, Japan	Kazuhiro Aruga	Japan	1022
D3	027	Evaluation of the drying potential of wood chips inside breathable flexible containers and modeling of moisture content transition	Maya Fujiwara	Japan	3141
D3	028	Log distribution planning for efficient wood supply chains	Dirk Jaeger	Germany	2859
D3	029	The impact of longer-term storage (3-6 months) on forest chip properties	Paula Jylhä	Finland	570
D3	030	The storage of Scots pine forest chips - CO2 fluxes as an indicator of dry matter losses	Paula Jylhä	Finland	572
D3	031	Forest woody biomass collection through a bundling process in mountainous area	Toshio Nitami	Japan	2918
D3	032	Impacts of forest resource competition on future bioenergy production in Austria – answers by a system dynamics model	Peter Rauch	Austria	187
D3	033	Establishment of logistics for economic biomass energy supply chain in Japanese condition	Mika Yoshida	Japan	2329
D3	034	Automatic mapping of forest operation possibilities: a decision support tool for forest planning	Sylvain Dupire	France	2940
D3	035	Evaluation of the wood hauling logistic performance in farm forest areas using Petri net	Carlos Machado	Brazil	877
D3	036	The impacts of selective logging on litter input, soil carbon and nutrient stocks, in the Brazilian Amazon	Barbara Bomfim	United States	3090
D3	037	Economic impact analysis on forest road construction using input- output analysis	Se Kyung Chong	Republic of Korea	1591
D3	038	Evaluation of environmental impacts of forest harvesting and its effects on sustainability	Luis Freitas	Brazil	3124
D3	039	Energy efficiency in intensified production of forest regeneration materials – design of a photovoltaic system for sustainably powering an innovative forestry incubator	Marco Hernandez Velasco	Sweden	1767
D3	040	Areas of forest required to maintain sustainable, local wood supplies in pacific northwest communities	Robert Keefe	United States	3772
D3	041	Technical and technological valorisation of forest areas for machine timber harvesting on the basis of the Cl index (Cone Index) in European forestry	Adam Lubera	Poland	2080
D3	042	Durability of chemically stabilized soils for forest road applications	Carlos Machado	Brazil	872
D3	043	Analysis of the traffic performance in forest roads using computational methods	Carlos Machado	Brazil	873
D3	044	Ergonomic evaluation of skyline models used in forest extraction	Carla Portugal	Brazil	881
D3	045	Slope restrictions on land-use practices: consequences for Borneo of different definitions and limits	Francis Putz	United States	972
D3	046	Production target for workers of digging holes machines for eucalyptus seedlings planting, as function of ergonomic factors, in Brazil	Amaury Paulo de Souza	Brazil	806

D3	047	Assessment of workers physical workload in semi-mechanized silviculture operations in mountainous regions, in Brazil	Amaury Paulo de Souza	Brazil	899
D3	048	The forest roads information database system	Jurij Beguš	Slovenia	3186
D3	049	Developing dynamic maps of forest roads with routes to GPS navigation receivers	Amaury Paulo de Souza	Brazil	900
D3	050	Biomechanical evaluation in eucalyptus silviculture operations, in Brazil	Amaury Paulo de Souza	Brazil	971
D3	051	Analysis of factors affecting forest road network planning: a Delphi study	Elyas Hayati	Iran	1552
D3	052	Cultivation of forest regeneration materials under artificial radiant sources - effects of light intensity on energy consumption and seedlings' development	Marco Hernandez Velasco	Sweden	1764
D3	053	Comparison of thinning productivities for the ordinary systems to the new system with a small wheel-mounted harvester and forwarder	Masahiko Nakazawa	Japan	2619
D3	054	Extraction of collapse risk factors for spur road using high resolution DTM	Masashi Saito	Japan	1133
D3	055	Generalizing over graph representations of road segments: a zigzag alignment model and a smooth alignment model	Hiroaki Shirasawa	Japan	493
D3	056	Valorization of complementary working time lengths in timber harvesting and skidding operations	Janusz Sowa	Poland	2142
D3	057	A new guide for work studies in forestry	Raffaele Spinelli	Italy	917
D3	058	Ergonomic and productive effects of replacement steel wire ropes with synthetic ropes for a mobile tower yarder	Ryosuke Watanabe	Japan	2415
D3	059	Comparative study of the ergonomic spectrum at the levels of logging entities and prefectures	Yozo Yamada	Japan	1448
D3	060	The research about raising the safety awareness of forestry in Japan	Yukina Funasaka	Japan	1147
D4					
D4	001	Spatial distribution of green spaces in the urban area of Ponta Grossa (Paraná-Brazil)	Silvia Méri Carvalho	Brazil	3584
D4	002	Urban forestry identification with high resolution remote sensing	Mayssa Grise	Brazil	1916
D4	003	Towards a harmonized monitoring of water provisioning, regulating and purifying services in urban forests	Anže Japelj	Slovenia	1937
D4	004	Geoprocessing in creating for the purpose of conservation areas in Parque Estadual da Cachoeira da Fumaça/ES, Brazil	Carlos Henrique Rodrigues de Oliveira	Brazil	3158
D4	005	Monitoring and evaluation of impacts of FSC forest management certification	Marion Karmann	Germany	3125
D4	006	Terra-i: An initiative to monitor forests and other natural covers based on the use of geospatial tools	Alejandro Coca Castro	Colombia	3699
D4	007	Use of Lidar technology to create a management plan for an urban park in Belo Horizonte, Minas Gerais, Brazil	Felipe Coelho de Souza Petean	Brazil	3268
D4	008	The contribution of historical vegetational database recovering to study the forest biodiversity in Trentino (Italy)	Nicola La Porta	Italy	1773
D4	009	Integrating a forest ecosystem services finder in WEFES, a web based explorer for forest ecosystem services	Tim Payn	New Zealand	2551
D4	010	Forest information in Brazil: evolution and strengthening	Fernanda Pieruzzi	Brazil	3532
D4	011	Global Forest Information Service (GFIS) in Russia	Valentin Shalaev	Russian Federation	1766
D4	012	Forest models dissemination and knowledge transfer on cork oak based ecosystems: bridging the gap between research and practice	João HN Palma	Portugal	2272

D4	013	Comparing methodologies for assessing forest ecosystem services in South Korea	Cholho Song	Republic of Korea	2557
D4	014	Environmental valuation of trees in urban area of Ponta Grossa - PR by the emergy analysis	Silvia Méri Carvalho	Brazil	3372
D4	015	The afforestation present in the squares of the city of Ponta Grossa- Paraná-Brazil	Silvia Méri Carvalho	Brazil	3637
D4	016	Green public areas as an increase to the connectivity between forest remnants in urban landscapes	Rogério Hartung Toppa	Brazil	1919
D4	017	In situ conservation of an urban forest fragment in the Botanical Garden of Salvador	Luciano Souza dos Santos	Brazil	3522
D4	018	Evaluating future wood availability in Europe. Methods and tools	Susana Barreiro	Portugal	483
D4	019	The system of silviculture for conservation and development (SICODESI), lessons from a successful case of forest management in Jalisco, México	Francisco Dominguez Hernandez	Mexico	182
D4	020	Spatial aspects of biodiversity as a part of harvest scheduling decision process	Jan Kaspar	Czech Republic	1843
D4	021	DSS OPTIMAL - a case study form the Czech Republic	Robert Marusak	Czech Republic	1867
D4	022	Forest cover dynamics of Dxing'anling Forest Zone over last four decades	Shiming Li	China	2948
D4	023	Biodiversity monitoring for sustainable conservation of Mt. Makiling Forest Reserve and Banahaw to support regional food security and climate change	Nelson Manguiat Pampolina	Philippines	2394
D4	024	Austrian Forest Biodiversity Index (AFBI) – concept and results	Thomas Geburek	Austria	2814
D4	025	Long term forest planning with consideration to fragmentation	Karin Ohman	Sweden	1812
D4	026	Species richness and forest productivity: a large-scale geospatial analysis	James Watson	United States	1541
D4	027	Forest management and carbon regulation: an integrated economic perspective based on sequestration, storage and substitution	Jean-Luc Peyron	France	3546
D4	028	Post-logging stand dynamics of a tropical rain forest in the Brazilian Amazon	Angela Luciana De Avila	Brazil	2912
D4	029	Potential of natural forest production in Sinop County at Amazonia region, Brazil	Patricia Mattos	Brazil	3272
D4	030	Growth pattern of Qualea albiflora and Goupia glabra in Amazon forest, Mato Grosso State, Brazil	Patricia Mattos	Brazil	3545
D4	031	Mezilaurus itauba sustainable management in Brazilian Amazon	Patricia Mattos	Brazil	3554
D4	032	A simplified method for yield regulation of miombo woodlands in the context of Participatory Forest Management	Massimiliano Sanfilippo	Italy	2816
D4	033	Urban forest ecosystem assessment in Louisiana using i-Tree Eco model	Kamran Abdollahi	United States	3718
D4	034	Effect of Pistachio canopy on the spatial distribution of soil chemical characteristics in the Zagros forests of Iran	Reza Akhavan	Iran	399
D4	035	Research strategies for genecological zonation of teak in India	Yasodha Ramasamy	India	884
D4	036	Response of autotrophic and heterotrophic soil respiration to long- term management in tree-based and treeless grassland ecosystems	Julius Adewopo	United States	2861
D4	037	Fine root turnover within land-use change from primary forest to degraded forest and oil palm plantation on tropical peat	Sebastian Persch	Indonesia	2546
D4	038	Mapping of forest disturbance in northeast China using time-series remote sensing data	Shiming Li	China	2380
D4	039	Landsat-MODIS data fusion for automatic mapping of fire disturbances in forest environment	Andrea Melchiorre	United States	1081

D4         041         Using financial indicators to manage risk in timber supply modelling         Georgina Rodriguez         Canada         1284           D4         042         Adaptability of an ecosystem-based management to climate induced increase in the requency and growth anomalies in an eastern Canadam borel forest         Georgina Rodriguez         Canada         3121           D4         043         MODIS based forest fire burnt area assessment in Hind-Kush- Himalaya (HK) region         Him LaS Nrestha         Nepal         1484           D4         044         Relationships between ground cover biomass and prescribed fire in longlead prine forests in the southestare trus.         Tom Stokes         United States         3840           D4         045         Targeting Forest Management through Fire and Erosion Modeling         William Eliot         United States         3444           D4         046         Ecotopical adaptation of the shea burder fire (Ntelaria practicon CE, Geneth, Janet Geneth, Janet Tomes, Control CE, Geneth, Janet Geneth, Janet Tomes, Control CE, Geneth, Janet Geneth, Fire and Control CE, Janet Dider Alpona         Benin         740           D4         047         Effects of climate change on subble habitat of trees. Analysis into control         Carmen Osoria         Partu         1427           D4         049         Rehabilitation process of natural inheid forest after wind disturbance aconto to chandos focotes and Stochastic Gradem Elosatin for Pediciting	D4	040	Characterization of fire regimes in Utah's subalpine forests using remotely sensed data	Aaron Rhodes	United States	3573
D4       042       increase in frie frequency and growth anomalies in an eastern Canadam boreal forest free burnt area assessment in Hind-Kush-       Him Lal Shrestha       Nepal       1484         D4       043       MODS based forest free burnt area assessment in Hind-Kush-       Him Lal Shrestha       Nepal       1484         D4       044       Relationships between ground cover biomass and prescribed fire in Iom Stokes       United States       360         D4       045       Trageting Forest Management through Frie and Froson Modeling       William Elioit       United States       3444         D4       046       Ecological adaptation of the state burlt free of Michaen garadoxa C.E.       Jean Dictor Akpona       Benin       740         D4       047       Effects of climato chango on suitable habitat of trocs. Analysis into correst of through group of the states of aduatant mixed forest after wind disturbance in construction systems: A new index for vulnerability assessment and neuro Alumoida Ribeiro       Perugal       1980         D4       049       Rehabilitation process of natural mixed forest after wind disturbance is advance and blackado       Mousyvshi Takahashi       Japan       2638         D4       050       Comparison of mcthodologies for quantifying distorestation: a study carabine states       2738       2738         D4       051       Trae effect of variging estimations procedures on downed dead wood       G	D4	041		Georgina Rodriguez	Canada	1284
D4OH3Himalayan (HKR) regionHim Lat StrüctshalNepal(H4P1D40.44Relationships between ground over biomass and prescribed fire in longleat prior torets in the southeastern U.S.Tom StakesUnited States380D40.45Targeting Forest Management through Fire and Erosion ModelingWilliam ElliotUnited States3444D40.46Ecological adaptation of the sheab turter tree (Wielkina paradosa C.F. Jean Dickier AkponaBenin740D40.47Effects of climate change on suitable habitat of trees. Analysis into control in systems: A new index for vulnerability of cark eak woodland porduction systems: A new index for vulnerability of cark eak woodland control.Nuno Almeida RibeiroPeru1427D40.48Production systems: A new index for vulnerability assessment and control.Nuno Almeida RibeiroPortugal1980D40.49Rehebilization process of natural mixed forest after wind disturbance case of Chico Mendes Resex, Brazilian AmazonMasayoshi TakahashiJapan2638D40.51The effect of varying estimation processes and Model Performance caron to stock estimates using the national forest inventory of the United StatesGrant DomkeUnited States2671D40.52Random Forests and Stochastic Gradient Booking for Predicing Tree Carony Cover: Comparing Turing Processes and Model Performance Carony Cover: Comparing Turing Processes and Model PerformanceLinkadet Lehtonal1456D40.53Wood volume estimation of rolarbiomass turover rates in Finland vood volume estimation and clinar	D4	042	increase in fire frequency and growth anomalies in an eastern	Georgina Rodriguez	Canada	3121
D4         U44         Ionglear pine forests in the southeastern U.S.         Initial States         Online States         Onlintot States         Online States	D4	043		Him Lal Shrestha	Nepal	1484
D4D46Ecological adaptation of the shea butter tree (Mtellarta paradova C.F. Gaerth.) along climate gradient in Benin, West AfricaJean Didler AkponaBenin740D4047Effects of climate change on suitable habitat of trees. Analysis into two ecoregionsCarmen OsorioPeru1427D4048Simulating forest dynamics and vulnerability of cark ack woodland production systems: A new index for vulnerability assessment and controlNuno Almeida RibeiroPortugal1980D4049Behabilitation process of natural invect forest after wind disturbance access of Chico Mendes Resex, Brazilian AmazonMasayoshi TakahashiJapan2638D4050Comparison of methodologies for quantifying deforestation: a study case of Chico Mendes Resex, Brazilian AmazonBarbara BomfimUnited States2738D4051The effect of varying estimation procedures on downed dead wood carbon stock estimates using the national forest inventory of the United StatesGrant DomkeUnited States2871D4053Wood volume estimation for eucalybus plantations using ALSEric Bastos GórgensBrazil257D4054Novel automated therrestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4057Comparison of climate change in exclusing indexination modeling?Slovakia3324257D4056Can detailed physiological measurements be efficiently used in fore measurement uncertainties when used in a multi-method approach.Anne Griebel <td>D4</td> <td>044</td> <td></td> <td>Tom Stokes</td> <td>United States</td> <td>380</td>	D4	044		Tom Stokes	United States	380
D4         D46         Gaerth.) along climatic gradient in Benin, West Africa         Jean DUber RApona         Benin         740           D4         047         Effects of climate change on suitable habitat of trees. Analysis into two ecoregions         Carmen Osorio         Peru         1427           D4         048         Simulating torest dynamics and vulnerability of cork oak woodland production systems: A new index for vulnerability assessment and control         Nuno Almeida Ribeiro         Portugal         1980           D4         049         Rehabilitation process of natural mixed forest after wind disturbance by bythono in Hokkaido, Japan in northern, Hokkaido         Masayoshi Takahashi         Japan         2638           D4         050         Comparison of methodologies for quantifying deforestation: a study case of Chico Mendes Resex, Brazilian Amazon         Barbara Bomfim         United States         2738           D4         051         Effect of varying estimation procedures on downed dead wood casho stoke estimates using the national forest inventory of the United States         United States         2871           D4         052         Random Forests and Stochastic Gradient Boosting for Predicing Tree Canopy Cover: Comparing Fung Processes and Model Performance         Eric Bastos Görgens         Brazil         257           D4         053         Wood volume estimation of folar biomass turnover rates in Finland         Aleksi Lehtonen         Finla	D4	045	Targeting Forest Management through Fire and Erosion Modeling	William Elliot	United States	3444
D4 <td>D4</td> <td>046</td> <td></td> <td>Jean Didier Akpona</td> <td>Benin</td> <td>740</td>	D4	046		Jean Didier Akpona	Benin	740
D4048production systems: A new index for vulnerability assessment and controlNuno Almeida RibeiroPortugal1980D4049Rehabilitation process of natural mixed forest after wind disturbance by typhoon in Hokkaido, Japan in northern, HokkaidoMasayoshi TakahashiJapan2638D4050Comparison of methodologies for quantifying deforestation: a study case of Chico Mendes Resex, Brazilian AmazonBarbara BomfinUnited States2738D4051The effect of varying estimation processes and worded dead wood carbon stock estimates using the national forest inventory of the United StatesGrant DomkeUnited States2871D4052Random Forests and Stochastic Gradient Boosting for Predicting Tree Canopy Cover: Comparing Tuning Processes and Model PerformanceElizabeth FreemanUnited States3686D4053Wood volume estimation for eucalyptus plantations using ALS metrics and stand ageEric Bastos GörgensBrazil257D4054Novel automated treestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4056Can detailed physiological measurements be efficiently used in forest modeling?Warren MoserUnited States3676D4058The inpact of climate change on Eucalyptus globulus plantations productivity. Bayeaian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus dorbult aspecies methodology, modela s	D4	047		Carmen Osorio	Peru	1427
D4049by typhoon in Hokkaido, Japan in northern, HokkaidoMasayoshi rakahashiJapan2638D4050Comparison of methodologies for quantifying deforestation: a study case of Chico Mendes Resex, Brazilian AmazonBarbara BomfimUnited States2738D4051The effect of varying estimation procedures on downed dead wood carbon stock estimates using the national forest inventory of the United StatesGrant DomkeUnited States2871D4052Random Forests and Stochastic Gradient Boosting for Predicting Tree canopy Cover: Comparing Tuning Processes and Model PerformanceElizabeth FreemanUnited States3686D4053Wood volume estimation for eucalyptus plantations using ALS metrics and stand ageEric Bastos GörgensBrazil257D4054Novel automated terrestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4056Can detailed physiological measurements be efficiently used in forest impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal2413D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigat	D4	048	production systems: A new index for vulnerability assessment and	Nuno Almeida Ribeiro	Portugal	1980
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D4051carbon stock estimates using the national forest inventory of the United StatesGrant DomkeUnited States2871D4052Random Forests and Stochastic Gradient Boosting for Predicting Tree Canopy Cover: Comparing Tuning Processes and Model PerformanceElizabeth FreemanUnited States3686D4053Wood volume estimation for eucalyptus plantations using ALS metrics and stand ageEric Bastos GörgensBrazil257D4054Novel automated terrestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4055Towards precise estimation of foliar biomass turnover rates in FinlandAleksi LehtonenFinland2671D4056Can detailed physiological measurements be efficiently used in forest impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandSvetlana SaarelaFinland2413D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a methodology, models, results,	D4	050		Barbara Bomfim	United States	2738
D4D52Canopy Cover: Comparing Tuning Processes and Model PerformanceElizabeth PreemanUnited States3686D4053Wood volume estimation for eucalyptus plantations using ALS metrics and stand ageEric Bastos GörgensBrazil257D4054Novel automated terrestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4055Towards precise estimation of foliar biomass turnover rates in FinlandAleksi LehtonenFinland2671D4056Can detailed physiological measurements be efficiently used in forest impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656	D4	051	carbon stock estimates using the national forest inventory of the	Grant Domke	United States	2871
D4053metrics and stand agethe trace of the basiles corgensBrazil257D4054Novel automated terrestrial Lidar sensor decreases forest measurement uncertainties when used in a multi-method approach.Anne GriebelAustralia1656D4055Towards precise estimation of foliar biomass turnover rates in FinlandAleksi LehtonenFinland2671D4056Can detailed physiological measurements be efficiently used in forest modeling?Katarina MerganicovaSlovakia3324D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mat	D4	052		Elizabeth Freeman	United States	3686
D4U54measurement uncertainties when used in a multi-method approach.Anne GrebelAustralia1656D4055Towards precise estimation of foliar biomass turnover rates in FinlandAleksi LehtonenFinland2671D4056Can detailed physiological measurements be efficiently used in forest modeling?Katarina MerganicovaSlovakia3324D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustral2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for three setsJeffrey Tay	D4	053		Eric Bastos Görgens	Brazil	257
D4056Can detailed physiological measurements be efficiently used in forest modeling?Katarina MerganicovaSlovakia3324D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for three outputJetrage Krazil1230	D4	054		Anne Griebel	Australia	1656
D4056modeling?Katarina MerganicovaSlovakla3324D4057Opportunities and challenges in evaluating medium-term climatic impacts: The U.S. Northern Forest Futures ProjectWarren MoserUnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for threeAlavander VibransBrazil1230	D4	055	Towards precise estimation of foliar biomass turnover rates in Finland	Aleksi Lehtonen	Finland	2671
D4057impacts: The U.S. Northern Forest Futures Projectwarren MoserOnited States3676D4058The impact of climate change on Eucalyptus globulus plantations productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for threeAlexander VibrageBrazil1230	D4	056		Katarina Merganicova	Slovakia	3324
D4058productivity. Bayesian model averaging of two process-based modelsJoão HN PalmaPortugal1933D4059Modelling the uncertainty of climate change impacts on Eucalyptus fastigata productivity in New ZealandJoão HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for threeAlexander VibransBrazil1230	D4	057		Warren Moser	United States	3676
D4059fastigata productivity in New ZealandJoao HN PalmaPortugal3251D4060Comparing probability-proportional-to-size and simple random sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for threeAlexander VibransBrazil1230	D4	058		João HN Palma	Portugal	1933
D4060sampling designs in model-assisted estimation of growing stock in a boreal forest area in FinlandSvetlana SaarelaFinland2413D4061Testing alternative response designs for training forest disturbance and attribution modelsTodd SchroederUnited States3656D4062A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4063A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4064Height-diameter mathematical models comparisons for threeAlexander VibransBrazil1230	D4	059		João HN Palma	Portugal	3251
D4O61and attribution modelsTodd SchloederOnited StatesS656D4O62A system for assessing live biomass of Northern Eurasian forests: methodology, models, results, and uncertaintiesAnatoly ShvidenkoAustria2141D4O63A transferable framework to interpret quality results of large data setsJeffrey TaylorUnited States3422D4O64Height-diameter mathematical models comparisons for threeAlexander VibransBrazil1230	D4	060	sampling designs in model-assisted estimation of growing stock in a	Svetlana Saarela	Finland	2413
D4     062     methodology, models, results, and uncertainties     Anatoly Snividenko     Austria     2141       D4     063     A transferable framework to interpret quality results of large data sets     Jeffrey Taylor     United States     3422       D4     064     Height-diameter mathematical models comparisons for three     Alexander Vibrans     Brazil     1230	D4	061		Todd Schroeder	United States	3656
D4     U03     sets       D4     064     Height-diameter mathematical models comparisons for three       D4     064	D4	062		Anatoly Shvidenko	Austria	2141
	D4	063		Jeffrey Taylor	United States	3422
	D4	064		Alexander Vibrans	Brazil	1230

D4	065	Fake forests and quantifying uncertainty in allometric equations for the 'real world'	Craig Wayson	United States	3602
D4	066	Detectable differences in carbon stocks of forest soils in Japan: boosted regression trees analysis can identify stratifying factors	Satoru Miura	Japan	1915
D4	067	Comparing alternatives for intensifying sampling intensity in forest inventories	Jock Blackard	United States	3669
D4	068	Forest carbon storage and tree biomass dynamics under the Natural Forest Protection Project in northeastern forest region of China	Limin Dai	China	1102
D4	069	Deposited carbon in Ukrainian forests: current stock and midterm forecast	Petro Lakyda	Ukraine	1954
D4	070	Evaluation of permanent sites for the monitoring and modeling of biomass and CO2 in Mexico's mixed forests	Luis Alejandro Lopez- Ochoa	Mexico	3831
D4	071	Contribution of forest management to carbon sequestration in Brazilian Amazon	Cintia Souza	Brazil	51
D4	072	Carbon stock and dynamics of pioneers and non-pioneers forest species in an undisturbed forest in Brazilian Amazon	Cintia Souza	Brazil	78
D4	073	Contribution of families Sapotaceae, Burseraceae and Lecythidaceae in the carbon sequestration of an unmanaged forest in Brazilian Amazon	Cintia Souza	Brazil	79
D4	074	Biomass and forest carbon accounting in cold-temperate ecosystems in Northern Mexico	Benedicto Vargas- Larreta	Mexico	3304
D4	075	Influence of extreme storm events on forest soil carbon stock changes in Baden-Wuerttemberg, Germany	Bin You	Germany	1930
D4	076	Estimates of forest biomass carbon storage in Liaoning Province of Northeast China: a review and assessment	Li Zhou	China	1112
D4	077	Western Africa tropical Sudanian riparian forest contribution in ecosystem carbon balance performance in Togo	Fousseni Folega	Togo	188
D4	078	Identifying priority areas for carbon reservoirs in the Sierra Norte de Puebla, Mexico	Manuel de Jesús González-Guillén	Mexico	3480
D4	079	Comparison of point clouds from 3D airborne image matching and airborne Lidar in mapping carbon or tropical rain forest in Indonesia	Yousif Hussin	Netherlands	3507
D4	080	Using MODIS data to estimate the leaf area index of different forest types in Taiwan	Tzu-Fang Lin	China-Taipei	661
D4	081	Geospatial biomass estimation in the Sierra Madre Occidental in Durango (Mexico)	Pablito Marcelo Lopez- Serrano	Mexico	3470
D4	082	The effect of changing forests on seasonal patterns of the albedo in boreal forests	Petr Lukes	Finland	2730
D4	083	Industrial forest mapping with satellite data	Luca Marini	United States	1089
D4	084	A new concept for the biomass estimation of conifer dominated boreal forest using remote sensing data	Parvez Rana	Bangladesh	721
D4	085	Considerations for using a plot based approach to model forest biomass and canopy structure at the landscape level using lidar technology	Charlie Schrader- Patton	United States	3854
D4	086	Predictive models for estimating the above ground biomass of oil palm plantations using Landsat Thematic Mapper	Mohd Nazip Suratman	Malaysia	956
D4	087	Evaluation of the revegetation process in forest fire areas for the monitoring and modeling of aerial biomass	Eduardo Treviño	Mexico	3830
D4	088	Forest crown closure retrieval using an inverted geometric-optical model	Yuan Zeng	China	2842
D4	089	Mapping the extent of conifers dominating high conservation value forests in Finland using Landsat data	Evgeny Lopatin	Finland	3240

D4	090	Russian Federation forest resources assessment based on free medium resolution remote sensing data	Evgeny Lopatin	Finland	3270
D4	091	Measurement and monitoring of carbon in Peru: methods and plans for MRV	Renzo Carlos Vergara Arellano	Peru	3592
D4	092	Assessing forest change across Canada using successive kNN-based maps of imputed forest inventory data	Pierre Bernier	Canada	1203
D4	093	Combining lidar structure and ecology data in predictive ecosystem mapping models for improved estimates of landscape-scale forest carbon	Melissa Fedrigo	Australia	1699
D4	094	Comparative assessment of riparian forests based on remote sensing in a Hungarian-Slovakian cross-border area	Géza Király	Hungary	2986
D4	095	Land use and land cover change estimation - a sample strategy monitoring	Kevin Megown	United States	3703
D4	096	RapidEye object-based image classification and landscape ecology analysis to support geospatial component of Brazilian National Forest Inventory	Yeda Oliveira	Brazil	3400
D4	097	Comparison of landcover classification using medium resolution and high resolution imageries	Him Lal Shrestha	Nepal	1483
D4	098	Potentials of canopy stratification in modeling planted forests in a changing world: application to pine plantations in Nigeria.	Peter O. Adesoye	Nigeria	267
D4	099	Zoning productivity and growth constraints for Eucalyptus forest plantation in Southeast of Brazil	Cristiane Lemos	Brazil	3078
D4	100	Site quality and climate factors in stand level modeling of biomass growth of hybrid poplar in Southern Scandinavia	Anders Tærø Nielsen	Denmark	3213
D4	101	Comparing spatially and non-spatially explicit algorithms to implement thinnings in an individual tree growth model for cork oak stands	Margarida Tomé	Portugal	3494
D4	102	Development of country-specific EF and NFI system for National GHG Inventory in forest sector, Korea	Jae Soo Bae	Republic of Korea	1129
D4	103	Carbon dioxide sequestration potential of the national greening program of the Philippines	Jose Alan Castillo	Philippines	648
D4	104	Annual changes in forest longitudinal data for use in greenhouse gas reporting under the UNFCCC and its Kyoto Protocol	Gro Hylen	Norway	2685
D4	105	Predicting forest carbon storage and sequestration based on national forest inventory using forest growth model	Kim Moonil	Republic of Korea	2489
D4	106	New Zealand's plantation forest inventories for Kyoto and UNFCCC reporting – Five years of measuring and modelling in a changing landscape	Thomas Paul	New Zealand	981
D4	107	A decision making framework for designing a carbon accounting system	Robert Waterworth	Australia	2554
D4	108	Snow dynamics suppressed the carbon emission in North America	Zhen Yu	United States	459
D4	109	National greenhouse gases inventories in a scope of REDD+: study of case in Nicaragua	Sheila Edith Zamora Lopez	Germany	3776
D4	110	Modeling forest biomass baselines in Miombo forests of southern Africa: approaches and uncertainties	James Halperin	Canada	3092
D4	111	Estimating above-ground biomass using airborne LiDAR in tropical seasonal forests for REDD+ implementation	Tetsuji Ota	Japan	1114
D4	112	Detection and quantification of forest carbon in intact tropical rain forests of Brunei Darussalam using remote sensing for REDD+	Mihae Yoon	Republic of Korea	2571
D4	113	A geostatistical approach to integrate the national forest inventories and monitoring issues in a scope of REDD+	Sheila Edith Zamora Lopez	Germany	3530

D4	114	Climate change impact in the Uruguayan forest sector: an empirical evidences analysis	Zohra Bennadji	Uruguay	1717
D4	115	Protected areas adaptation to future climate and land use changes in northern Thailand	Yongyut Trisurat	Thailand	20
D4	116	Research infrastructure & network for monitoring and adapting European Atlantic forests under climate change (REINFFORCE)	Christophe Orazio	France	1900
D4	117	Using species distribution models to select climate change resistant species for ecological restoration of bowé in West Africa	Elie Padonou	Benin	230
D4	118	Estimating carbon storage in forest ecosystems in Poland basing on data from national forest inventory	Karol Bronisz	Poland	2968
D4	119	Why aren't we making progress with predicting future forest dynamics?	Harald Bugmann	Switzerland	3019
D4	120	Application of the CBM model to estimate Europe's current and future forest carbon sequestration	Giacomo Grassi	Italy	2188
D4	121	Floristic composition, species diversity and carbon storage in charcoal and agriculture fallows and management implications in Miombo woodlands of Zambia	Felix Kalaba	Zambia	341
D4	122	Assessing the climate change mitigation potential of residue-based bioenergy in Canada's forest sector	Werner Kurz	Canada	2970
D4	123	Simulating effects of forest management to the European forest carbon stocks and carbon balance	Annikki Mäkelä	Finland	2503
D4	124	Developing modular methods for predicting forest growth responses to environmental change	Annikki Mäkelä	Finland	2828
D4	125	Inclusion of carbon cycle and albedo in LCA for bioenergy	Ellen Soldal	Norway	1707
D4	126	Systematic review of impacts of the white spruce tree improvement program in the boreal forest of Canada: a meta-analytical approach	Suborna Ahmed	Canada	975
D4	127	Intra-annual xylem formation of Norway spruce and Scots pine across latitudinal gradient in Finland	Harri Mäkinen	Finland	854
D4	128	Blue carbon of selected plantation and natural stands of mangrove forests in the Philippines	Jose Alan Castillo	Philippines	1305
D4	129	The change analysis of Myanmar dryland land cover and vegetation temperature condition index	Eun Jung Lee	Republic of Korea	2559
D4	130	Paired catchment experimental methodology: a critique	Jami Nettles	United States	931
D4	131	Using inventory-based tree-ring data as a proxy for historical climate: investigating the Pacific decadal oscillation and teleconnections	Robert DeRose	United States	3875
D4	132	An idea of things to come: using satellite observations for assessing site-specific sensitivities of European beech to excessive drought conditions	Joachim Hill	Germany	2260
D4	133	Using forest landcover disturbance detection as a proxy for monitoring water quality in the Lake Michigan and Superior Basins	Charles Perry	United States	3853
D4	134	Forest recovery on runoff and river discharge at different scales in subtropical area of China	Guoyi Zhou	China	1690
D4	135	Riparian forests in Pitangui River: a high heterogeneous landscape at South Brazil	Rosemeri Moro	Brazil	3620
D4	136	A proposed coastal pine reforestation model on the Great East Japan Earthquake	Kanji Mizutani	Japan	237
D4	137	Estimation of the tree radial growth in the South Western bushes of Madagascar by growth rings analysis	Tahiana Ramananantoandro	Madagascar	3283
D4	138	Impacts of biomass operations on soil erosion	William Elliot	United States	3630
D4	139	A global meta-analysis of forest bioenergy greenhouse gas emissions accounting studies (1991-2012)	Thomas Buchholz	United States	2012

D4	140	'Carbon debt' - lost in the forest?	Niclas Scott Bentsen	Denmark	3367
D4	141	Assessment of above-ground biomass and soil carbon storage of the fallow forests after swidden cultivation in the Bago Mountains, Myanmar	Nyein Chan	Myanmar (Burma)	1485
D4	142	Local and general above-stump biomass functions for loblolly pine and slash pine trees	Carlos Gonzalez- Benecke	United States	810
D4	143	Modeling woody biomass utilization for energy feedstock in the northwest United States	Ryan Jacobson	United States	3762
D4	144	An object-based analysis of high resolution imagery to map canopy cover across semi-Mediterranean stands in western Iran	Hooman Latifi	Germany	2032
D4	145	Genomics-assisted selection of white spruce benefits from SilviScanTM: advanced phenotyping technology for measuring industrially relevant wood traits	Gail Sherson	Canada	3632
D4	146	Growing stock, community management and deforestation rates in the Brazilian biomes	Fernanda Pieruzzi	Brazil	3537
D4	147	A national assessment of non-timber forest products: prospects for improving the reporting of volumes and values of these products	James Chamberlain	United States	550
D4	148	Log distribution planning for efficient wood supply chains	Margarida Tomé	Portugal	1411
D4	149	A methodological proposal for the assessment of the sustainability of Eucalyptus SPP plantations in Spain	Luis Diaz-Balteiro	Spain	977
D4	150	Influence of spacing regimes on the development of loblolly pine (Pinus taeda L.) in southern Brazil	Andre Lacerda	Brazil	3169
D4	151	Growth dynamics of silvertop ash regrowth forests in East Gippsland in response to contrasting thinning and fertiliser applications: A twenty-year evaluation	Emma Soraya	Australia	636
D4	152	Risk analysis and forest scenario modelling	Vindhya Prasad Tewari	India	97
D4	153	A simplified method for assessing forest health changes during 7 years using Triplochiton scleroxylon stands in south west Nigeria	Peter O. Adesoye	Nigeria	129
D4	154	Effects of different harvesting scenarios in a Brazilian eucalyptus catchment	Vinicius Guidotti de Faria	Brazil	1881
D4	155	Multi-scale spatial controls of understory vegetation in Douglas-fir – western hemlock forests of western Oregon, USA	Julia Burton	United States	2250
D4	156	Stand canopy cover prediction from individual tree measurements: stocking, crown width, and overlap functions	Andrew Gray	United States	3148
D4	157	Variation in floristic composition during secondary succession of forest in Cataniapo River Basin, Amazonas state, Venezuela	Pedro Villa	Venezuela	2078
D4	158	Methods for determining the thresholds of forest gaps (treefall gaps)	Jiaojun Zhu	China	2575
D4	159	Validation of five nonlinear growth models for plantation grown Terminalia superba in Ibadan, Nigeria	Bola Monisola Awosusi	Nigeria	1221
D4	160	Future demand for ecosystem services from terrestrial ecosystems from global power production scenarios to 2100: the role of forest biomass	Ingeborg Callesen	Denmark	2850
D4	161	Monitoring Trends and Burn Severity for CONUS	Brad Quayle	United States	3727
D4	162	Evaluation of carbon content in forests of northeastern Mexico	Oscar Alberto Aguirre Calderón	Mexico	1347
D4	163	Three experiences of geostatistics application for estimation and mapping of forest stock in the Caspian region of northern Iran	Reza Akhavan	Iran	398
D4	164	Estimating stand heights and crown structure of subtropical broadleaved forest using Lidar data in Okinawa Island, Japan	Azita Binti Ahmad Zawawi	Japan	1139
D4	165	An historically consistent and broadly applicable MRV system based on Lidar sampling and Landsat Time-Series	Warren Cohen	United States	3286

D4	166	Exploring options for the estimation of forest carbon stocks from 1990 to the present using the national forest inventory of the United States	Grant Domke	United States	2848
D4	167	Perspectives of integrating multi-phenological and multi-sensory remote sensing data into operational forest management	Joachim Hill	Germany	2676
D4	168	Measuring photosynthesis of beech seedlings with field imaging spectroscopy	Joachim Hill	Germany	2756
D4	169	A spatiotemporal assessment of forest cover changes in Mongolia using remotely sensed data	Tsogtbaatar Jamsran	Mongolia	2383
D4	170	The United States government's SilvaCarbon Program: technology transfer for MRV development	Andrew Lister	United States	3629
D4	171	The variations analysis of forest canopy closure estimated from airborne Lidar data	Qingwang Liu	China	2563
D4	172	Remote sensing, GIS and successive inventory for forest resource assessment in the Blue Nile region, Sudan	Mustafa M. El-Abbas	Germany	3239
D4	173	Towards an understanding of shifting cultivation systems as a form of forest degradation	Lucía Morales	United Kingdom	3280
D4	174	A new European climate dataset	Adam Moreno	Austria	1222
D4	175	Estimating aboveground tree biomass in three different miombo woodlands and associated land use systems in Malawi	Henry Neufeldt	Kenya	779
D4	176	Forest aboveground biomass estimates in Madagascar: new insights from the use of wood specific gravity data	Tahiana Ramananantoandro	Madagascar	2163
D4	177	Effect of field plot location on estimating tropical forest attributes of Nepal using ALS (Airborne Laser Scanning) data	Parvez Rana	Bangladesh	725
D4	178	Forest carbon stocks in longleaf pine forests in the southern United States	Lisa Samuelson	United States	373
D4	179	Modelling bark thickness and volume for Norway spruce (Picea abies [L.] Karst) in SW-Germany	Stefan M. Stängle	Germany	1963
D4	180	New approach for extracting growth trends and climate information from radial increment of Scots pine and Norway spruce	Nicole Suty	Sweden	3463
D4	181	Longitudinal and radial variation of the wood density in a unmanaged stand of Araucaria angustifolia	Patricia Mattos	Brazil	3172
D4	182	Small area estimation of forest attributes within fire boundaries	Tracey Frescino	United States	3245
D4	183	Historical investigation of forest landscapes and their various uses in the early 20th century, based on national forest management plans	Asako Miyamoto	Japan	913
D4	184	Estimation of carbon emission and removal from the harvested wood products pool following the 2013 IPCC KP Supplement in Japan	Yuko Tsunetsugu	Japan	2708
D5					
D5	001	Strategies for sustainable dependence on the forest: the case of wood carvers in Ghana	Emmanuel Appiah- Kubi	Ghana	2764
D5	002	Comparing the potential of Black Pine essence for use in pharmaceutical industries (Case study: Ardabil and Guilan provinces, North Iran)	Mehrdad Akbarzadeh	Iran	696
D5	003	Profitability analysis of commercial processing of Vitellaria paradoxa on livelihood of rural dwellers in Savanna Area of Oyo State.	Oghenekevwe Joy Arabomen	Nigeria	46
D5	004	Importance of Pseudocedrela kotschyi and Mitragyna inermis in well being of communities in Sudanian zone of Benin	Emeline P.S. Assede	Benin	174
D5	005	Beekeeping as a source of livelihood strategy in Oyo State, Nigeria	Adedunmola Abosede Ayomide	Nigeria	1179

D5	006	Evaluation of the sapote fruit (Capparis scabrida H.B.K.) in relation to the tree's characteristics, from Humedades Community, Motupe, Lambayeque-Perú	Farrah Indira Galindo Jara	Peru	3595
D5	007	Livelihood sustenance potentials of herbal medicine in rural areas of Abia State, Nigeria	Kikelomo Kola-Oladji	Nigeria	277
D5	008	Coumarins content of seed and crude oil of Calophyllum inophyllum from forest stands in Indonesia	Budi Leksono	Indonesia	905
D5	009	Forest leafy vegetables marketing and sustainable rural livelihood in Rivers State, Nigeria	Adekunle Oladele	Nigeria	130
D5	010	Potentials for promotable oil products identified by traditional knowledge on native trees in Burkina Faso	Amadé Ouedraogo	Burkina Faso	36
D5	011	Contribution of NTFPs in livelihood and carbon management in moist temperate forests of Kashmir Valley, India	Ishtiyak Ahmad Peerzada	India	293
D5	012	Sustainable management of Copaiba (Copaifera spp.) for oil production: definition of an optimal rotation	Luiz Carlos Estraviz Rodriguez	Brazil	1285
D5	013	Endophytic fungi as a source of bioactive compounds	Tytti Sarjala	Finland	1855
D5	014	Protecting forest and medicinal plant resources: a legal brief on Prunus africana	Emmanuel Suka	Cameroon	16
D5	015	Saving blood fruit and monkey cola from disappearing in Cameroon's forest	Emmanuel Suka	Cameroon	17
D5	016	Contradictive "dragon blood" rattan: promising people livelihood, conversely, species in the doorway of extinction	Enny Widyati	Indonesia	366
D5	017	Sustainable utilization and marketing of selected non-timber forest products to support the handicraft industry and the development of rural communities	Romulo Aggangan	Philippines	2311
D5	018	Potential of the forest to produce raw material for the wood carving industry in Ghana	Blankson Baffo	Ghana	620
D5	019	Impact of land use practices on traits and production of shea butter tree (Vitellaria paradoxa C.F. Gaertn.) in Benin	Jean Didier Akpona	Benin	737
D5	020	Livelihood potential of Moringa oleifera tree and its role in food security and health care in Nigeria	Oghenekevwe Joy Arabomen	Nigeria	44
D5	021	Boswellia serrata gum oleoresin and its contribution to rural economy of Sheopur District of central India	Pratibha Bhatnagar	India	523
D5	022	An example of an ecologically sustainably territory in Cuba	Katia Manzanares Ayala	Cuba	283
D5	023	Impact of anthropogenic disturbances on high value NTFPs in temperate moist oak forest: a case study from the Eastern Himalayas, India	Tamalika Chakraborty	Germany	3449
D5	024	Impact of alternative fertilization with sodium on growth and wood quality of Eucalyptus grandis plantations in Brazil	Mariana Pires Franco	Brazil	3330
D5	025	Intra-annual phloem and xylem formation, and primordial shoot development in Norway spruce saplings exposed to elevated CO2 and temperature	Hisashi Abe	Japan	2457
D5	026	Case study: impact of climate change on industrially relevant white spruce wood traits determined with SilviScanTM	Tessie Tong	Canada	3625
D5	027	Energy value of wood residues from Gmelina arborea Roxb. and Tectona grandis Linn. f.	Gloria Titi Anguruwa	Nigeria	548
D5	028	Firewood production of Eucalyptus urophylla in Brazilian savanna area	Milton Meira-Junior	Brazil	2063
D5	029	Sustainable bio-energy development in Kenya	Nellie Oduor	Kenya	1205
D5	030	Longitudinal and radial variation of the charcoal production in eucalypts	Paulo Trugilho	Brazil	887

D5	031	Wood-based biomass-to-electricity sector development in rural Uttarakhand, India	Richard Vlosky	United States	345
D5	032	Optimizing wood utilization in regard to GHG emissions and primary energy consumption on a regional level exemplified for south-east Germany	Karin Höglmeier	Germany	470
D5	033	Harvesting the dead and decaying forests: potential carbon storage and avoided emissions	Wyatt Klopp	Canada	3557
D5	034	Evaluation of environmental impacts for Korean harvested wood products	Joo-Saeng Park	Republic of Korea	986
D5	035	Radial variation of wood density and wood anatomy of Quercus spp. (Fagaceae) in Japan	Hisashi Abe	Japan	842
D5	036	The conversion yield from wood to charcoal can be estimated by Near Infrared Spectroscopy	Paulo Hein	Brazil	1515
D5	037	Optimization of dilute acid hydrolysis of I-214 poplar clone wood grown in Turkey	Bahattin Gurboy	Turkey	2832
D5	038	Heterologous expression of lignin-degrading enzymes from white rot fungi in Pichia pastoris	Myungkil Kim	Republic of Korea	261
D5	039	Intra and inter-island variations of biofuel content and their physical- chemical properties of Calopyllum inophyllum in Indonesia	Budi Leksono	Indonesia	581
D5	040	Production of cellulose from wood: formation of oxidized groups and their effect on cellulose properties	Jordan Perrin	France	3907
D5	041	Drying dimension lumber - winning the game without breaking the rules	Robert Erickson	United States	3498
D5	042	Role of US homebuilders' psychographic orientation in their adoption and use of certified wood in residential construction projects	Indroneil Ganguly	United States	3254
D5	043	Wood materials and products in the development of Bio-Economy - RDI programme of the Finnish Forest Research Institute (Metla)	Henrik Heräjärvi	Finland	1816
D5	044	Growth drivers within the firewood industry	Erlend Nybakk	Norway	1190
D5	045	Key problems of the use of environmental-friendly straw board in furniture production: some countermeasures	Liming Shen	China	2328
D5	046	Assessment for half-life and carbon stock of harvested wood products in Korea	Hwanmyeong Yeo	Republic of Korea	3613
D5	047	Nanocellulose market volume projections: a derived demand analysis	Edward Bilek	United States	3848
D5	048	Timber trade and its effectiveness in the context of Slovakia	Yvonne Brodrechtova	Slovakia	1964
D5	049	Relationships between environmental impacts and added value in Norwegian wood processing industries	Kristian Bysheim	Norway	2562
D5	050	The current status of wood utilization for residential housing in Okinawa prefecture, Japan	Yoshiyuki Chinen	Japan	1376
D5	051	Small enterprises and the U.S. secondary wood industry	Omar Espinoza	United States	2578
D5	052	Bringing the forest in: establishing the link between the use of wood and health in the built environment	David Fell	Canada	3481
D5	053	Consumer preferences for wood product information content in sustainability context	Jani Holopainen	Finland	939
D5	054	What makes wood so attractive? Transforming consumers' emotions into material characteristics	Andreas Manuel	Germany	2039
D5	056	Factors impacting exports of US hardwoods: A case of study in Germany, China, and Vietnam	Henry Quesada- Pineda	United States	946
D5	057	Platform for cost efficient environmental assessment	Tarmo Räty	Finland	2922
D5	058	Biomass supply chains: mapping flows and identifying forest sector business opportunities	Richard Vlosky	United States	347

D5	059	Consumer perceptions of children's furniture in Shanghai and Shenzhen, China	Minli Wan	Finland	238
D5	060	Forest products trade and wood carbon flows case study of forest product trade between US west coast and China	Xiaoping Zhou	United States	2099
D5	061	Socio-economic importance of indigenous fruit trees: Strychnos cocculoides and Schinziophyton rautanenii in Rundu Rural West Constituency, Kavango Region, Namibia	Selma Ndemutila Elago	Namibia	1228
D5	062	Analysis of non-timber forest products activities and income among rural households in Nigeria	Oluseyi Olugbire	Nigeria	710
D5	063	Decision-making along a tropical forest product commodity chain: implications for ecological sustainability	Jose Antonio Sierra Huelsz	Mexico	2982
D5	064	Wild mushroom in Italy: from a commodity to a recreational service.	Enrico Vidale	Italy	2929
D5	065	The characteristics of global trade of truffles	Enrico Vidale	Italy	3108
D5	066	Sustainable development – international framework – overview and analysis in forest and forest product context	Annika Hyytiä	Finland	2520
D5	067	Residual DNAs extracted from timbers and its effectiveness for identification of wood species	Ugai Watanabe	Japan	2541
D5	068	Domestication of the prioritized medicinal and aromatic plants in community forestry	Dhananjaya Lamichhane	Nepal	495
D5	069	Main non-timber forest products' socio-economic importance for inhabitants of the Czech Republic	Ludek Sisak	Czech Republic	1191
D5	070	Production of mate (Ilex paraguariensis) in Rio Grande do Sul, Brazil in the last years: discussing the current crisis	Maurício Vassali	Brazil	2792
D5	071	Profiling of aroma compounds released from four major bamboo shoots of high economic value in Taiwan	Min-Jie Chuang	China-Taipei	855
D5	072	Study on novel dyeing methods for green-color preservation of three bamboo culms and their colorfastness	Chia-Ju Lee	China-Taipei	599
D5	073	Comparative anatomy of developmental moso bamboo culms	Zhiqiang Li	China	1633
D5	074	Influence of rot on living trees Norway spruce (Picea abies (L.) Karst.) wood density and strength properties	Marius Aleinikovas	Lithuania	1794
D5	075	Properties of guapuruvu wood (Schizolobium parahyba (Vell.) Blake) from forest recovery areas in Brazil	Julia Carolina Athanázio-Heliodoro	Brazil	3408
D5	076	Modelling the effects of partial harvesting on lumber product assortment and value: a case study in the eastern Canadian boreal forest	David Auty	Canada	3300
D5	077	Enzymatic biodegradable characterization of wood decaying fungi	Myungkil Kim	Republic of Korea	263
D5	078	Use of wood and agricultural residues in brick production: an environmentally friendly alternative to Cement Blocks in Ghana	Emmanuel Appiah- Kubi	Ghana	871
D5	079	Cross laminated bamboo-Guadua panels for construction	Hector F Archila Santos	United Kingdom	788
D5	080	Maritime pine bark extraction for tannin-lignin adhesives	Fatima Charrier-El Bouhtoury	France	870
D5	081	Flexural properties of wood I-beam flanged with pine (Pinus sp.) and curupixá (Micropholis venulosa)	Cláudio Del Menezzi	Brazil	279
D5	082	Properties of wood plastic composite made from nanoclay added Eastern red cedar	Salim Hiziroglu	United States	1055
D5	083	Improving Mexican forest viability by technological characterization of commercial wood composites by nondestructive methods	Mariana Ramírez- Pérez	Mexico	1554
D5	084	Caryocar villosum (Aubl.) Pers. as a Bioresource: Evaluation of particleboard technological properties	Paula Surdi	Brazil	3079

D5	085	Reinforcement of plant fiber-based ultra-low-density material with sodium silicate	Yongqun Xie	China	3627
D5	086	Role of extractives in the photo-discoloration of Cryptomeria japonica wood caused by UV irradiation	Tzu-Cheng Chang	China-Taipei	1780
D5	087	Antifungal potential and chemical composition of Chamaecyparis formosensis and Chamaecyparis obtusa var. formosana essential oils in liquid and vapor phase against plant pathogenic fungi	Ying-Ju Chen	China-Taipei	1344
D5	088	Crude tall oil impregnation as a wood preservation method	Henrik Heräjärvi	Finland	1017
D5	089	Fungal decay of Pinus kesiya fascia boards on external joinery in Zambia	Elisha Ncube	Zambia	1941
D5	090	Premature failure of creosote treated electricity transmission wood poles in Zambia	Elisha Ncube	Zambia	1961
D5	091	Phosphine fumigation for protection of wood from powderpost beetle damage in Indian conditions	Remadevi O.K.	India	2408
D5	092	The role of Fenton derived hydroxyl radicals in oxidative and enzymatic degradation of furfurylated wood	Klaus Richter	Germany	2852
D5	093	Utilization of naturally durable tropical woods in society for a greener future	Andrew Wong	Malaysia	3784
D5	094	Soil contamination with aqueous wood extractives does not inhibit seed germination of vegetables okra and tomato	Andrew Wong	Malaysia	3797
D5	095	Soil contamination with chromated copper arsenate preservative, an organophosphate and two synthetic pyrethroids affecting seed germination of vegetables okra and tomato	Andrew Wong	Malaysia	3803
D5	096	Bamboo shoots sector in China: encountering a great opportunity with some challenges	Liangru Wu	China	3547
D5	097	Financial analysis of charcoal production methods in Ghana	Beatrice Darko Obiri	Ghana	2257
D5	098	Screening of fruiting genes in Lentinula edodes	Myungkil Kim	Republic of Korea	264
D5	099	Growth stresses and wood basic density of eucalyptus related to the productivity of the plantation site	José Lima	Brazil	3439
D5	100	The Utah Biomass Resources Group: from the Dragon Wagon to mobile pyrolysis	Darren McAvoy	United States	3045
D5	101	Evaluation of pellet fabricated from plantation wood and several agricultural crops utilizing X-ray densitometry	Mario Tommasiello	Brazil	1095
D5	102	Bidimensional scanning by means of acoustic tomography of six trees in the park of Ducuara at the University of Tolima, Colombia	Luis Alfredo Lozano Botache	Colombia	327
D5	103	Effect of water availability on the radial profile of wood density by X-ray densitometry for Eucalyptus grandis, at 36 months old in Brazil	Vinicius Castro	Brazil	3204
D5	104	Comparative wood anatomy of Cordia trichotoma (Boraginaceae) from seeds of two provenances and analysis of its growth rings	Caroline Caum	Brazil	2737
D5	105	Evolution of quality wood flooring in Brazilian companies members of a certification program	Ariel Andrade	Brazil	2245
D5	106	Analysis of defects in wood flooring manufactured by Brazilian companies members of a certification quality program	Ariel Andrade	Brazil	3138
D5	107	Combined compression and thermal modification of silver birch and European aspen sawn wood – color changes along the profile	Jukka Antikainen	Finland	1859
D5	108	Exploring lesser used timber species in Ghana for greener construction: a case of Cola gigantea and Ficus sur	Emmanuel Appiah- Kubi	Ghana	874
D5	109	Promotion and utilization of plantation grown timber species in Ghana: the kiln drying schedule of Khaya ivorensis	Emmanuel Appiah- Kubi	Ghana	2682

D5	110	Promotion and characterization of the mechanical properties of the non timber forest product Borassus aethiopum	Osei Asibe Asafu- Adjaye	Ghana	3606
D5	111	Microwave assisted extraction of condensed tannins from maritime pine (Pinus pinaster) bark	Fatima Charrier-El Bouhtoury	France	869
D5	112	Effect of heat treatment on the physical properties of moso bamboo (Phyllostachys pubescens)	Chih-Lung Cho	China - Taipei	1589
D5	113	Yield and chemical composition of essential oils from leaves of two Brazilian savannah trees	Cláudio Del Menezzi	Brazil	360
D5	114	The occurrence of wet pockets in the drying of Acacia mangium using conventional steam-heated kiln	Kee Seng Gan	Malaysia	1152
D5	115	Developing the evaluation method for wood stiffness of Sugi (Japanese Cedar, Cryptomeria japonica D. Don) at nursery stage	Yuji Kurahara	Japan	2291
D5	116	Morphological variability and nutrient composition of Tunisian aromatic apiaceae Magydaris pastinaceae L. growing in the Northern Forest zones	Arbia Labidi Ben Slimane	Tunisia	2159
D5	117	Indonesian fast-growing tree species as alternative raw material for forest industries	Nina Mindawati	Indonesia	210
D5	118	Macroscopic characterization and dimensional stability in selected specimens of Prosopis alba Griseb in the Chaco region of Argentina	Alisson Molina Bejarano	Colombia	450
D5	119	Impact of compression and thermal modification on mechanical properties of silver birch and European aspen wood	Veikko Möttönen	Finland	1676
D5	120	Non-timber forest products in the Atlantic forest and savanna in São Paulo state, Brazil	Liz Ota	Brazil	3674
D5	121	Potential of non-timber forest product in Perum Perhutani	Corryanti Sambodo	Indonesia	1645
D5	122	Dynamic characteristics of 25 Mexican woods with a potential for structural use evaluated by stress waves	Germán Suárez-Béjar	Mexico	1895
D5	123	Dimensional changes behavior of Erisma uncinatum Warm. submitted to additional heat treatment at 90°C after conventional drying	Saly Takeshita	Brazil	2740
D5	124	Physical and chemical characterization of three hardwood species with potential for commercial use	Saly Takeshita	Brazil	2743
D5	125	Nondestructive estimation of mode I fracture toughness of wood using near infrared (NIR) spectroscopy	Ken Watanabe	Japan	2731
D5	126	Effect of different surface treatment processes on the printability and absorbability of decorative base paper	Jianfeng Xu	China	1581
D5	127	Development of center-bored outer-surface sealed timber drying method and evaluation of the drying energy consumption	Hwanmyeong Yeo	Republic of Korea	3631
D5	128	Comparison of color, brightness and chroma of natural dye-coated veneer	Byungoh Yoo	Republic of Korea	1935
D5	129	Use of medicinal plants among Panchen-Monpa tribe in remote region in the Eastern Himalayas, India	Somidh Saha	Germany	3478
D5	130	Plants used to treat infectious diseases in Togo: Pterocarpus erinaceus Poir (Faboïdeae) and Daniellia oliveri (Rolfe) Hutch. and Dalz (Caesalpinioïdeae)	Nassifatou Koko Tittikpina	Togo	528
D6					
D6	001	Amenity forestry and environmental sustainability: the example of Calabar Botanic Garden, Cross River state, Nigeria	Felix Aya	Nigeria	3319
	002	Ecosystem services and human well-being in the Brazilian Amazon:	Vagner Camilotti	Brazil	3538

D6	003	Fear of crime in urban parks –does age, gender and ethnic makes a difference?	Sreetheran Maruthaveeran	Malaysia	2537
D6	004	Forest offenders become the protector of the forest: A case study from Bangladesh inland Sal Forest	Md. Nazmus Sadath	Bangladesh	3020
D6	005	Analysing of different community based forestry in relations to employment and local livelihood in Nepal	Dharam Raj Uprety	Nepal	1828
D6	006	The perception of internet users regarding to human health benefits provided by urban green areas	Daniela Biondi	Brazil	2083
D6	007	Sovereignty of Indonesian biodiversity conservation and health through development of "Kampung Konservasi"	Ellyn Kathalina Damayanti	Indonesia	1643
D6	008	A study of Japanese attitudes toward coniferous forests and pollen allergy	Mari Kawase	Japan	2426
D6	009	Green spaces at the work place and allergic sensitization of office workers in the city and forest	Jeonghee Lee	Republic of Korea	2465
D6	010	Analyzing the willingness for cooperation between forest and health experts in improving people's health in Germany	Katharina Meyer	Germany	1689
D6	011	A cost-benefit framework for urban green areas in the case of intensifying urban development	Mika Rekola	Finland	3261
D6	012	The effects of forest therapy utilizing regional abandoned forests in Japan	Iwao Uehara	Japan	466
D6	013	Assessment of honey (NTFP) and its utilization on the rural livelihoods in the rainforest ecological zone of Nigeria	Quadri Onilude	Nigeria	438
D6	014	Determinants and global patterns of bushmeat hunting	Mariève Pouliot	Denmark	1722
D6	015	Dietary pattern of indigenous people, local people and immigrant in the vicinity of Harapan Rainforest – Indonesia	Nayu Nuringdati Widianingsih	Denmark	2969
D6	016	Analysis of factors contributing to the urban green space cooling island intensity in the summer	Fanhua Kong	China	989
D6	017	Urban forestry changes in the western U.S.	Michael Kuhns	United States	461
D6	018	Geographic information system and monitoring of urban forest in Boa Vista, Roraima, Brazil	Everaldo Lima Neto	Brazil	3457
D6	019	Effects of urbanization of Ghana on urban forests and peri-urban community livelihoods	Emmanuel Opuni Frimpong	Ghana	3523
D6	020	How to make a joint-management artistically: a case study on several urban parks in Guiyang, China	Shawn Hu	Republic of Korea	717
D6	021	Implementing REDD+ in community managed forests: Lessons from India	Swapan Mehra	India	2856
D6	022	Impact of socio-economic circumstances to forest management and forest cover in Java Island, Indonesia	Kaori Shiga	Japan	2990
D6	023	Community involvement in forest management (CIFMs) to improve people livelihood in Indonesia	Enny Widyati	Indonesia	183
D6	024	Rural development with non-timber forest products: the case of Qiannan Buyi and Miao Autonomous Prefecture, Guizhou in China	Hang Xun	China	3511
D6	025	Participatory monitoring of non-timber forest products. What factors lead to cooperation?	Alice Brites	Brazil	501
D6	026	The role of mangrove forests in sustaining household livelihoods in the Niger Delta, Nigeria	Kelechi Eleanya	Nigeria	3037
D6	027	Research on present status of sustainable livelihood of workers' families in China's key state-owned forest region	Yuechen Liang	China	3605
D6	028	A carrying capacity approach to forest management in developing countries	Misa Masuda	Japan	3687

D6	029	Enhancing community livelihoods through nature based enterprises: the case of Matinyani women group, Kitui, Kenya	Oscar Mayunzu	Kenya	250
D6	030	Subsistence strategies and means of the river populations of the Luki Biosphere Reserve in the Democratic Republic of Congo	Jean Semeki	Congo, Democratic Republic of the	176
D6	031	Alternative livelihoods and biodiversity conservation	Terry Sunderland	Indonesia	2870
D6	032	Participation of stakeholders in community-based forestry in Cross River State, Nigeria	Ene Abi	Nigeria	612
D6	033	Participatory forestry and rural development: sharable lessons for better management across south Asia	Kazi Kamrul Islam	Bangladesh	712
D6	034	What makes community forest management successful in Myanmar?	Phyo Thu	Myanmar (Burma)	2460
D6	035	Joint forest management in western Uganda - impacts of internal governance on local livelihoods and conservation	Nico Wilms-Posen	Germany	787
D6	036	Exclusion of low-income households from forestry management: a study on forestry specialized cooperatives in China	Ruolei Zhu	Singapore	127
D6	037	The local particularity of the livelihoods of Taungya participants in the teak plantations in the Bago Mountains, Myanmar	Ei	Japan	2613
D6	038	Community food forests in the United States: what environmental and social benefits do they provide? who is using them and why?	Catherine Bukowski	United States	3345
D6	039	Factors influencing unwillingness in private forestry in humid south of Nigeria	Mac-Anthony Onyema	Nigeria	1734
D6	040	Efficient and effective control of bark beetle outbreaks in community forest of Oaxaca, Mexico	Adrian Poloni	United States	3039
D6	041	Forest research institutions and Caçador Model Forest: integrating local knowledge and scientific approaches to enhance rural livelihoods in Southern Brazil	Maria Augusta Rosot	Brazil	1890
D6	042	Promoting community forestry in a REDD+ context: a global analysis of small-scale forestry enabling environments in 44 developing countries	Olivia Sanchez Badini	Canada	3468
D6	043	The Komet Programme-a public-private partnership in forest protection	Ulrika Widman	Sweden	2703
D6	044	Anchor forests and the Tribal Forest Protection Act: Eastern Washington pilot project	Jay O'Laughlin	United States	1404
D6	045	Exploring opportunities for participatory wildlife management at the Bia Biosphere Reserve in western Ghana	Emmanuel Danquah	Ghana	2577
D6	046	Manning the front lines of biodiversity conservation: developing competency standards for protected areas management in the Philippines	Floribel Paras	Philippines	3210
D6	047	Co-management approach to protect the protected areas: realistic or naive?	Md. Nazmus Sadath	Bangladesh	3742
D6	048	Valuation of ecotourism potentials of Olumo Rock, Abeokuta, Nigeria using travel-cost model approach	Oluyinka Akintunde	Nigeria	611
D6	049	Stakeholders' perception as support for forest landscape planning in Ciliwung Watershed, Indonesia	lis Alviya	Indonesia	3780
D6	050	Ecosystem services and protected areas: contribution of Pendjari National Park to Benin economy	Abdelaziz Lawani	Benin	2385
D6	051	Páramos como ecosistemas en transformación: Análisis multi - temporal de las percepciones acerca de la transformación de áreas de páramos en proceso de delimitación.Colombia	Connie Paola Lopez Gomez	Colombia	3467

D6	052	Valuing recreation for New Zealand's planted forests: moving beyond traditional timber economics towards achieving multi-purpose forests	Stefania Pizzirani	New Zealand	2341
D6	053	NP Risnjak- visitor vulnerability on "Leska" educational path and suggestions to avoid unfortunate outcome	Fran Poštenjak	Croatia	1551
D6	054	Merging gaps between forest conservation and agricultural production in protected areas: case study of Southern Bakundu in Cameroon	Emmanuel Suka	Cameroon	19
D6	055	Development of a trail auditing tool for trails at the wildland-urban interface	Elise Gatti	United States	3527
D6	056	Multistakeholder approach for managing conflicts and developing shared vision on community-based forest management in Nepal	Madhu Ghimire	Nepal	1438
D6	057	Alaska natives, local knowledge and climate change	Linda Kruger	United States	2288
D6	058	Desired forest futures of forest sector stakeholders in Sweden	Annika Nordin	Sweden	3257
D6	059	Traditional conservation practices and plant biodiversity potential of sacred groves in Ghana	Lord Ameyaw	United States	2228
D6	060	Species diversity and management techniques of Village Common Forests: a case study from Bandarban, Bangladesh	Md. Mohitul Hossain	Germany	2617
D6	061	Contribution of tribal women in biodiversity conservation and ecosystem restoration in the Bandarban Hill District of Bangladesh	Mohammed Mohiuddin	Bangladesh	1454
D6	062	The values of traditional knowledge and practices of nipa production to sustainable forest management in Cortes, Bohol, Philippines	Floribel Paras	Philippines	3259
D6	063	Traditional knowledge is trivial for managing mountain natural resources: a case study from the Eastern Himalaya	Somidh Saha	Germany	3348
D6	064	Shifting cultivation: traditional ecological knowledge of the Dayak people in East Borneo Indonesia	Martha Ekawati Siahaya	Indonesia	1318
D6	065	Impact of falling culture and indigenous knowledge on forest conservation in South West Cameroon	Emmanuel Suka	Cameroon	18
D6	066	Mapping a full cycle of swidden cultivation in Laos	Shinya Takeda	Japan	2441
D6	067	The vital role of stallholder initiatives in forest restoration and reforestation: the case of Cameroon	Richard Eba'a Atyi	Cameroon	1345
D6	068	Crop diversity of upland farms in Apayao Province	David Rodolfo	Philippines	406
D6	069	Rural people's perception of forest resources conservation in Ekiti State, Nigeria	Oluwayemisi Grace E. Arowosoge	Nigeria	2650
D6	070	Socio-economic and cultural aspects of forest transition in Kuningan District, West Java, Indonesia	Ellyn Kathalina Damayanti	Indonesia	844
D6	071	Underlying causes of forest transitions in Indonesia	Ellyn Kathalina Damayanti	Indonesia	2425
D6	072	Gender difference in forest management: temporal and cross-cultural perspective in aboriginal communities in India and Canada	Monika Singh	Canada	3721
D6	073	The role of forests, fallows and fisheries in household income generation and flood shock coping in the Peruvian Amazon floodplain	Jamie Cotta	Denmark	1928
D6	074	Smallholder land-use management in Bosawás Biosphere Reserve, Nicaragua's Agricultural Frontier	Lisa Hansen	Canada	2081
D6	075	The role of south Brazilian traditional community forests (Faxinais) in Atlantic forest conservation	Rosemeri Moro	Brazil	3585
D6	076	Strengthening sustainable forest management in the Colombian Amazon oriented by in situ wood transformation	César Polanco	Colombia	3445
D6	077	New roles of indigenous peoples as productive actors linked to the forest sector of Bolivia	Walter Benjamín Rivera Coria	Bolivia	243

D6	078	One methodology, two realities: partnering with indigenous peoples in the Peruvian Amazon	Andrea Vasquez	Canada	3528
D6	079	Preparing forestry students for the labour market outside targeted sectors	Desiana Barianti Ahlberg	Sweden	3882
D6	080	Comprehensive curriculum revision 101	Steve Bullard	United States	2867
D6	081	Integrating forestry capstone curriculums: preparing today's students to be tomorrow's forest managers through education in sustainability and certification	Tamara Cushing	United States	3362
D6	082	The value of graduate undergraduate mentorship programs in academia	Joseph Hulbert	United States	3539
D6	083	Higher education and capacity development for sustainability and clean technologies - experiences from Mozambique	Roope Husgafvel	Finland	1810
D6	084	Present situation of forest education include forestry, environment and outdoor activities in Japan	Mariko Inoue	Japan	1173
D6	085	International masters in wood energy: an EU project for developing higher education in the bioenergy sector	Enrico Marchi	Italy	1232
D6	086	Undergraduate enrollments in forestry and related areas of natural resources in the U.S. with respect to gender and race/ethnicity	Terry Sharik	United States	2374
D6	087	Best practices for enhancing communication skills of forestry majors in U.S. institutions of higher learning	Andrew J Storer	United States	3127
D6	088	Integrating social science research class into the forestry curriculum: a case study of Forestry Engineering Program in Colombia	Liz Villarraga	Colombia	521
D6	089	Forestry higher education facing social and economic changes	Michał Zasada	Poland	2955
D6	090	Social sciences in forestry curricula – experiences at the University of Freiburg, Germany, over twenty years	Siegfried Lewark	Germany	1303
D6	091	Pedagogy of Place Institute	Linda Kruger	United States	2285
D6	092	Pest scene investigators: a citizen science-based effort to improve forest health in Oregon	Paul Oester	United States	463
D6	093	Uneven-aged management in a mixed-conifer forest in northeast Oregon: a case study with an innovative educational approach	Paul Oester	United States	464
D6	094	Forest culture in the neotropics: what is it? why is it needed?	Roger Villalobos	Costa Rica	1311
D6	095	Bird song diversity influences young people's appreciation of urban landscapes	Marcus Hedblom	Sweden	1200
D6	096	Perceived personal safety in urban parks—through the eyes of urban park users of Kuala Lumpur	Sreetheran Maruthaveeran	Malaysia	2515
D6	097	Does participation in non-profit urban tree-planting programs improve neighborhoods? Examining the impact of collective action on neighborhood residents	Shannon Lea Watkins	United States	3149
D6	098	Tourism activities and biodiversity conservation within protected areas in West Africa	Fifanou Vodouhe	Benin	3433
D6	099	The role of dryforests for livelihood resilience: experience from the pastoral and agro-pastoral production systems in the drylands of Ethiopia	Adefris Worku Gizaw	Ethiopia	199
D6	100	Decision-support tools for sustainable rural development: the case of the alpine area of Como Lake, Italy	Salvatore Martire	Finland	2787
D6	101	Assessing cultural ecosystem services and their association with other ecosystem services in research forest in the western Cascade Mountains, of Washington, USA	Lord Ameyaw	United States	3596
D6	102	Multi-level policy dialogues and actions for REDD+ social safeguards: observations from a global comparative study on REDD+	Pamela Jagger	United States	3229

D6	103	Too safe to survive: going overboard on free and prior informed consent	Promode Kant	India	1453
D6	104	Ensuring social safeguards: forest use rights of local communities and participatory process of Lombok KPH REDD+ feasibility study in Indonesia	Sitti Latifah	Indonesia	2853
D6	105	Distribution of potential REDD+ benefits from agricultural lands in forests and forest-savanna transition zones of Ghana	Kwame Antwi Oduro	Ghana	3238
D6	106	Relevance of REDD initiatives for local communities in a low biomass forest. Case of tapia woodland, Central part of Madagascar	Harifidy Rakoto Ratsimba	Madagascar	961
D6	107	AgriCarb: an option for rural development in Gabon	Carmen M. Schmid	Austria	3800
D6	108	Impacts of natural forest landslides in a rural community of Morretes, PR-Brazil	Maria Augusta Rosot	Brazil	2356
D6	109	Tool development for analysing forest owners' strategies to manage risks and adapt to climate change	Åsa Gerger Swartling	Sweden	2854
D6	110	Linking mitigation and adaptation: learning from the First Indonesian Forestry A/R CDM – community based project between Korea and Indonesia	Ulfah J. Siregar	Indonesia	2492
D6	111	Building climate resilience communities by integrating community practices into the local planning process in Nepal	Dharam Raj Uprety	Nepal	808
D6	112	Prospects of strengthening social forestry in the coastal areas through introducing mangrove species at Shyamnagar Upazila in Satkhira District, Bangladesh	Md. Nazmus Sadath	Bangladesh	2446
D6	113	Local community initiative in preserving the sustainability of mangrove forest ecosystem at Kalitoko, Mayalibit, Raja Ampat, West Papua - Indonesia	Binsar Liem Sihotang	Indonesia	719
D6	114	Linking quantitative projections and qualitative scenario methods for modeling ecosystem services from forest landscapes	Gintautas Mozgeris	Lithuania	1947
D6	115	Evaluation of the management of two community forests in the Eastern Region Cameroon (ASDEBYM and CODECBOM) under the FLEGT	Ghislain Aime Fomou Nyamsi	Cameroon	3370
D6	116	Beyond individual plant yield: integrating diverse socio-environmental factors to estimate commercial production of an Amazonian non-timber forest product	Andrea Alechandre	Brazil	3608
D6	117	Tropical Hardwood Tree Improvement and Regeneration Center: strategies for creating a new collaborative research and extension partnership	Faith Inman-Narahari	United States	2267
D6	118	Small-scale private forests provide increased structural diversity and carbon storage in Germany's Swabian Alb biosphere reserve	Tobias Plieninger	Denmark	864
D6	119	Survival analysis in plantations of Araucaria angustifolia (parana pine) derived from seedlings and seeds	Maria Augusta Rosot	Brazil	1846
D6	120	Conservation of high economic value endangered species through participatory cultivation model	Sri Suharti	Indonesia	439
D6	121	General health condition in forest species of three parks in Mexico City: crown condition	Alejandra Zaragoza- Hernandez	Mexico	26
D6	122	A comparative analysis of global stakeholders' perceptions of the governance quality of the CDM and REDD+	Tek Maraseni	Australia	149
D6	123	Research and experimental center design as a tool for technology propagation for DLDD	Khaulenbek Akhmadi	Mongolia	2796
D6	124	Updated identification and evaluation of species produced by Barreirinha Municipal Nursery Garden in Curitiba, Paraná, Brasil	Daniela Biondi	Brazil	2373
D6	125	Project Floresta-Escola: an interaction between elementary school students and the forest	Daniela Biondi	Brazil	3321

D6	126	Mapping boundaries of community conserved areas: institutional and operational challenges	Swati Chaliha	India	3206
D6	127	Promoting co-benefits of ecotourism as a complementary strategy for sustainable Gunung Halimun Salak National Park management	Meti Ekayani	Indonesia	1509
D6	128	The effect of the deforestation rate on human activities in Central Africa: CoForTips project	Pauline Gillet	Belgium	2822
D6	129	A study on forestry and related students' cognition, attitude and behavior toward biodiversity in Taiwan	Ming-Yuan Huang	China-Taipei	3736
D6	130	Willingness of local communities to participate in REDD+ activities: a case study in communities in forest and forest savannah transition zones in Ghana	Winnie Efua Eshun Kofie	Ghana	2386
D6	131	Environmental and economic impact of mangrove deforestation -case study of Vadamaradchy East, Sri Lanka	Sasikumar Kumarasamy	Norway	3829
D6	132	Addressing climate change adaptation and mitigation through community-based forest management in Nepal	Ram Prasad Lamsal	Nepal	1342
D6	133	Community perspectives for a cacao-based agroforestry development in Camalig, Albay Province in the Philippines: an application of the q-methodology	Floribel Paras	Philippines	3288
D6	134	Management of regeneration on hurricane-affected forests and its implications for the development of indigenous communities in the North-Atlantic Region, Nicaragua	John Sánchez Correa	Colombia	139
D6	135	Eradicating an invasive species: Landowner perceptions of impacts to ecosystem services	Anna Santo	United States	3243
D6	136	Principal agent in tree mortgage system on traditional agroforestry management in Moluccas Indonesia	Sri Suharti	Indonesia	930
D7					
D7	001	Rehabilitation strategies and ecotourism development for mined-out and waste dump areas in Bagacay, Hinabangan, Western Samar, Philippines	Angelito Exconde	Philippines	645
D7	002	Effects of overstory species diversity and composition on pest damage to high value species and understory ant diversity in Ghana	Paul P. Bosu	Ghana	3454
D7	003	Mycorrhizal Communities in imperata cylindrica invaded and non- invaded commercial Pinus taeda stands	Adam Trautwig	United States	2238
D7	004	Forest fire danger changes for China mainland in past 30 years	Xiaorui Tian	China	1319
D7	005	Potential impacts of climate change on fire socioeconomic vulnerability in the Mediterranean area	Armando González- Cabán	United States	3836
D7	006	Drought effects on forest health and growth in the western part of the Eurasian steppe region	Ionel Popa	Romania	1702
D7	007	Damages risk assessment of Norway spruce forests with different site and stands characteristics: towards sustainability assessment and sustainable management	Povilas Žemaitis	Lithuania	2765
D7	008	Cephalcia arvensis defoliation on Norway spruce: a case study analysis by tree-rings and stable isotopes approach	Andrea Battisti	Italy	3025
D7	009	Siberian pine mortality in southern Siberian Mountains	Viacheslav Kharuk	Russian Federation	2522
D7	010	Cinnamomum osmophloeum leaf oils act as antifungal agents for wood rot fungus Phellinus noxius	Sen-Sung Cheng	China-Taipei	418
D7	011	Chemical treatments to sanitize Phytophthora ramorum colonized timber material and mitigate the risk of accidental sudden oak death dissemination	Joseph Hulbert	United States	3529

D7	012	Responses of urban forest to environmental stress	Zhouli Liu	China	1666
D7	013	Impact of nitrogen fertilizer factory pollution on ground vegetation of pine forests Lithuania	Vitas Marozas	Lithuania	1446
D7	014	Effects of air pollution and climate change on forest growth in Southern Carpathians (Retezat and Bucegi-Piatra Craiului Mountains)	Stefan Neagu	Romania	1159
D7	015	Ozone stomatal flux-based critical levels translated into real-world forest impacts	Alessandra De Marco	Italy	666
D7	016	Effects of elevated ozone on the injury, growth and photosynthesis of ten woody species widespread in Beijing	Zhaozhong Feng	China	1125
D7	017	Evidence of widespread ozone-induced visible injury on plants in Beijing	Zhaozhong Feng	China	1570
D7	018	Photosynthesis and growth response of Metasequoia glyptostroboides seedlings to elevated O3	Zhaozhong Feng	China	1573
D7	019	Stomatal ozone flux-response relationship for visible injury and net photosynthesis in poplar trees treated with or without EDU	Elena Paoletti	Italy	1177
D7	020	Ozone fluxes and epidemiology of ozone injury to forests	Elena Paoletti	Italy	1171
D7	021	Ozone-induced differences in phenology and antioxidants of poplar trees treated and untreated with ethylenediurea (EDU)	Elena Paoletti	Italy	1175
D7	022	BVOC emission from silver birch under ozone and nitrogen stress	Elena Paoletti	Italy	2068
D7	023	Ecophysiological responses of beech (Fagus crenata) stressed by ozone exposure and/or water shortage	Hideyuki Shimizu	Japan	2851
D7	024	Nitrogen deposition and critical loads for Sierra Nevada forests: a comparison of measurement techniques and ecosystem responses	Carolyn Hunsaker	United States	3879
D7	025	Reassessing critical load calculations by ecosystem feedback	Martin Lorenz	Germany	1870
D7	026	Conserving plant diversity of Central European oligotrophic forest habitats requires goal-oriented management of nutrient cycles	Patrick Pyttel	Germany	2934
D7	027	Emerging insect pest and disease in Cedrela odorata plantations in Ghana	Mary Apetorgbor	Ghana	2878
D7	028	Phytophthora plurivora, a new species causing collar rot on Alnus glutinosa in Spain	Julio Javier Diez- Casero	Spain	2161
D7	029	The good and the bad: trade-offs between disease resistance and symbionts in loblolly pine	Lori Eckhardt	United States	2223
D7	030	Interactive effects of white pine needle damage and climate change on forest health and carbon-water dynamics across the Northeastern US.	Cameron McIntire	United States	2892
D7	031	Effects of tree species biodiversity on foliar fungal pathogen regulation: understanding the spread of the ash dieback pathogen, Hymenoscyphus pseudoalbidus	Diem Nguyen	Sweden	2488
D7	032	Report of Chrysoporthe cubensis Bruner Gryzenhout & M. J. Wingf. in plantations of Eucalyptus pellita in the Colombian Orinoquia region	Olga Pinzon	Colombia	3622
D7	033	Quambalaria: new reports from four continents, including a new species from Australia	Michael Wingfield	South Africa	2616
D7	034	Improving mass rearing techniques for Cleruchoides noackae (Hymenoptera: Mymaridae)	Leonardo Barbosa	Brazil	2174
D7	035	First releases of Selitrichodes neseri, a new biological control agent for the eucalyptus gall wasp, Leptocybe invasa	Brett Hurley	South Africa	2661
D7	036	Climatic change and insect outbreaks in Canada's boreal forests	Jean-Noel Candau	Canada	3731
D7	037	To know a bark beetle. Ecophysiological implications for mathematical modeling of bark beetle population dynamics	Petr Dolezal	Czech Republic	2111
D7	038	The role of drought and stand density in Jeffrey pine susceptibility to the Jeffrey pine beetle	Nancy Grulke	United States	462

D7	039	Climate change and silvicultural practices promoted the emergence of a novel pest of poplar stands	Francois Lieutier	France	3825
D7	040	Infestation patterns of Phoracantha semipunctata (Coleoptera: Cerambycidae) corresponding with a drought-induced dieback event in native host trees in southwestern Australia	George Matusick	United States	2367
D7	041	Trophic interactions between vertebrate insectivores and a climate- driven expanding forest moth	Herve Jactel	France	1877
D7	042	Evaluation of mortality in natural stands of Pinus oocarpa in Nicaragua	Tessa Bauman	United States	2093
D7	043	Population genetics reveals the origin of the Coryphodema tristis host expansion to Eucalyptus nitens in South Africa	Jeffrey Garnas	South Africa	1493
D7	044	Impacts of variation in resource quality for larvae of the European woodwasp, Sirex noctilio, in South African Pinus patula plantations	Jeffrey Garnas	South Africa	1497
D7	045	Characterizing Great Basin bristlecone pine tree chemistry	Curtis Gray	United States	1479
D7	046	The genetic diversity of the deodar weevil, Pissodes nemorensis (Coleoptera: Curculionidae), in its introduced range in South Africa	Brett Hurley	South Africa	2679
D7	047	Global patterns of diversity of the Sirex-Amylostereum-Deladenus symbionts and their implications for control	Brett Hurley	South Africa	2694
D7	048	Patterns and processes affecting stem borers in subtropical eucalypt plantations	Simon Lawson	Australia	2655
D7	049	Sirex noctilio host searching behavior: use of reliable infochemicals emitted by fungal symbiont	Andres Martinez	Argentina	3499
D7	050	Diversity of the parasitic nematode Deladenus siricidicola and its relevance as a biological control agent	Bernard Slippers	South Africa	2530
D7	051	Interacting disturbances in mixed-conifer forests of the US: effect of bark beetles and wildfires on forest trajectories	Camille Stevens- Rumann	United States	805
D7	052	Collaboration in managing the threat of Sirex noctilio – the South African experience	Sally Upfold	South Africa	2615
D7	053	Pinus taeda roots represent a suitable host substrate for developing Hylastes spp. of bark beetles in Alabama, US	Tessa Bauman	United States	2060
D7	054	Variation in susceptibility of native Scottish Scots pine populations to infection by Dothistroma septosporum	Stuart Fraser	United Kingdom	3088
D7	055	Optimal control strategies of forest pathogens in a heterogeneous landscape: a French case study	Claudio Petucco	Luxembourg	1986
D7	056	Insect problems: a challenge for the reforestation in the Colombian Orinoquia region	Olga Patricia Pinzón Florian	Colombia	3694
D7	057	Evaluating North American endophytic fungi for biological control of a coadapted pathogen Dothistroma needle blight in Pinus sp.	Mary Ridout	United States	824
D7	058	Assessing the impacts of Imperata cylindrica (L.) Beauv on root-feeding bark beetle populations associated with southern pine decline	Adam Trautwig	United States	2057
D7	059	An economic comparison of prevention strategies against forest pathogens	Marielle Brunette	France	343
D7	060	FT-IR spectroscopy identifies coast live oak resistant to Phytophthora ramorum before infection	Anna Conrad	United States	959
D7	061	A socioeconomic assessment of the impact of the red palm mite on the Nariva Swamp of Trinidad and Tobago	Marc Garcia	Trinidad and Tobago	3648
D7	062	A mobile application and citizen science to monitor incidence and severity of marri (Corymbia calophylla) Quambalaria coyrecup cankers in Australia	Giles Hardy	Australia	1677
D7	063	Life history of the walnut twig beetle, Pityophthorus juglandis, in California and Utah	Paul Dallara	United States	3834

D7	064	Variation in resistance of Pinus taeda families against root infecting fungi	Lori Eckhardt	United States	2035
D7	065	Thinning and fertilization effects on the populations of Hylastes species and associated ophiostomatoid fungal species in Pinus taeda stands	Lori Eckhardt	United States	2122
D7	066	Taxonomy and population biology of Grosmannia huntii sensu lato	Lori Eckhardt	United States	2162
D7	067	Interactions between Matsucoccus macrocicatrices, fungal pathogens, and eastern white pine dieback in the southern Appalachians	Kamal Gandhi	United States	1531
D7	068	Role of phoretic mites in the transmission of tree pathogens	Richard Hofstetter	United States	1117
D7	069	Genetic diversity and population structure of an ambrosia beetle- vectored fungus (Raffaelea quercus-mongolicae) associated with oak mortality in Korea	Mee-Sook Kim	Republic of Korea	2323
D7	070	Complementary roles of bark beetle and associated fungi in overwhelming conifer defenses	Paal Krokene	Norway	3809
D7	071	Xylem dysfunction caused by Japanese oak wilt pathogen Raffaelea quercivora and its hyphal distribution	Yukiko Takahashi	Japan	2710
D7	072	Hyphal growth of Raffaelea quercivora within inoculated living and gamma-ray-sterilized seedlings of two Japanese and three American oak species	Masato Torii	Japan	1107
D7	073	Pathogenicity of three Raffaelea spp. isolates collected in northern Thailand against Quercus crispula seedlings	Masato Torii	Japan	2407
D7	074	Modelling stomatal ozone deposition in Mediterranean annual pastures using a multilayer-multispecies model	Rocío de la Macarena Alonso del Amo	Spain	3056
D7	075	Mapping large forest fire susceptibility using MODIS in Washington and Oregon	Zhiqiang Yang	United States	3722
D7	076	Natural occurrence and pathogenicity of Metarhizium anisopliae obtained from Peninsular Malaysia forest soils against Atteva sciodoxa larvae	Mohd Farid Ahmad	Malaysia	2100
D7	077	Forestry pests and diseases diagnosis in Costa Rica	Marcela Arguedas	Costa Rica	825
D7	078	The impact of soil humidity and climatic conditions on Scots pine (Pinus sylvestris L.) damages in Lithuania	Gediminas Capkauskas	Lithuania	2101
D7	079	New records of insects associated with seedlings of some forest trees in Sabah, Malaysia	Y. C. Arthur Chung	Malaysia	564
D7	080	Biotic and abiotic factors associated with large scale die-off of a Eucalyptus clone in Zululand, South Africa	Izette Greyling	South Africa	847
D7	081	Host colonization behavior of the walnut twig beetle, Pityophthorus juglandis (Coleoptera: Scolytidae): implications for the worldwide cultivation of walnut trees	Stacy Hishinuma	United States	3771
D7	082	Eastern hemlock-dominated forest ecosystems of northeastern Ohio and possible changes with the impending infestation by the Hemlock Woolly Adelgid	David Hix	United States	2860
D7	083	High economic damages due to rot pathogen Heterobasidion annosum s.l. in close-to-nature managed Norway spruce forests in the Italian Alps	Nicola La Porta	Italy	3598
D7	084	Updated list of Scolytid species occurring in commercial tree plantations in Uruguay	Gonzalo Martinez	Uruguay	1223
D7	085	Seasonal dynamics of the bronze bug Thaumastocoris peregrinus on Eucalyptus spp. plantations after four years of monitoring	Gonzalo Martinez	Uruguay	1913
D7	086	Life cycle, survivorship, and control of an insect pest, Trachys yanoi (Buprestidae, Coleoptera)	Masashi Ohsawa	Japan	605

D7	087	Invasiveness of Uromycladium tepperianum on Falcataria moluccana affected by pyroclastic cloud from Merapi Volcano, Yogyakarta, Indonesia	Sri Rahayu	Indonesia	775
D7	088	Insect pest problems of Indian sandalwood (Santalum album Linn.) in the current scenario of its cultivation and the possible management practices	Sundararaj Ramachandran	India	92
D7	089	Record of two new insect pests on Indian rosewood Dalbergia latifolia Roxb	Sundararaj Ramachandran	India	1348
D7	090	Natural enemy recruitment to the Asian chestnut gall wasp, Dryocosmus kuriphilus, a highly invasive pest of chestnut, Castanea spp., worldwide	Lynne Rieske-Kinney	United States	3473
D7	091	The anatomical properties of gall gust on Falcataria moluccana coppice tree caused by gall rust fungus Uromycladium tepperianum in Cangkringan, Yogyakarta	Shofi Rukhama	Indonesia	1709
D7	092	Physokermes inopinatus, a new forest pest due to changing climate?	Olle Anderbrant	Sweden	2807
D7	093	Monitoring air, water and insect-borne invasive forest pathogens in Sweden	Johanna Boberg	Sweden	2830
D7	094	Neonectria canker on true fir in western USA	Gary Chastagner	United States	2387
D7	095	Monitoring of Sesia apiformis infestations in poplar plantations at different spatial scales	Julio Javier Diez- Casero	Spain	2620
D7	096	Dead stands from the space: experiences with synergized multi- date medium resolution imagery to describe damages caused by European bark beetle	Hooman Latifi	Germany	443
D7	097	Detection and epidemiology of invasive fungal pathogens by real time quantitative PCR	Nicola Luchi	Italy	1957
D7	098	Monitoring bark and ambrosia beetles in commercial forestry in Uruguay	Gonzalo Martinez	Uruguay	1036
D7	099	Mycosphaerella leaf disease and its impact on Eucalyptus plantations in Uruguay	Carlos Pérez	Uruguay	2158
D7	100	The Swiss needle cast foliage disease epidemic on the Northwestern coast of the US	Dave Shaw	United States	3291
D7	101	Trees outside forest (TOF) strongly impact habitat connectivity for forest insects	Jérôme Rousselet	France	2239
D7	102	Two new ophiostomatoid species isolated from soil on snouts of feral hogs damaging pine roots in Georgia, USA	Lori Eckhardt	United States	2017
D7	103	Linking phylogeographic history, niche divergence and biological invasion risks. The case of North American Dendroctonus bark beetles	Martin Godefroid	France	2533
D7	104	Advances in the knowledge of eucalyptus gall insects in Uruguay: current status and future prospects	Carolina Jorge	Uruguay	2123
D7	105	Modelling forest insect distributions in Europe under climate change scenarios	Päivi Lyytikäinen- Saarenmaa	Finland	3316
D7	106	Climate change-induced shift in voltinism of eastern larch beetle, Dendroctonus simplex, associated with increased tree-killing behavior	Fraser McKee	United States	3701
D7	107	Flight activity, life history, and host selection behavior of the walnut twig beetle in its native range in the southwestern United States	Corwin Parker	United States	3820
D7	108	Colonization dynamics of mountain pine beetle in eastern and western pines: Implications to range expansion	Derek Rosenberger	United States	3635
D7	109	Googling forest pests - use of Google as a monitoring tool for delimiting the distributional range of forest pests	Jérôme Rousselet	France	2258
D7	110	Climate alters interactions among bark beetles and symbionts potentially altering geographic range	Diana Six	United States	3086

D7	111	Global homogenization of forestry insect pests - a case study of Leptocybe invasa	Bernard Slippers	South Africa	2121
D7	112	Allee effects and the establishment of exotic invasive bark beetles	Eckehard Brockerhoff	New Zealand	1545
D7	113	Megastigmus parasitism of North American Cupressaceae	Jean-Noel Candau	Canada	3754
D7	114	Nurseries as pathways for Phytophthoras to enter the Turkish forests	Tugba Dogmus- Lehtijarvi	Turkey	2486
D7	115	The use of EDDMapS to monitor the range extension of two invasive insect species in Hungary	Katalin Tuba	Hungary	3768
D7	116	Paper mulberry invasion in Ghana	Paul P. Bosu	Ghana	3482
D7	117	Status of forest tree diseases in Turkey	Tugba Dogmus- Lehtijarvi	Turkey	2484
D7	118	Winter moth: biological control and population dynamics in the northeastern United States	Joseph Elkinton	United States	3339
D7	119	Insect frugivores and their impact on the regeneration of mangrove species in West Coast of India	Remadevi O.K.	India	2432
D7	120	Nursery pest management of Phytolyma lata Walker (Scott) attack on Iroko (Milicia excelsa Welw C. C. Berg) seedlings	Samuel Olajuyigbe	Nigeria	1801
D7	121	Status of the invasive spiraling whitefly Aleurodicus dispersus Russell (Hemiptera: Aleyrodidae) in India along with new host records	Sundararaj Ramachandran	India	1455
D7	122	Common foliar endophyte Hormonema sp. suppresses seedling emergence of host species Pinus ponderosa	Mary Ridout	United States	819
D7	123	Population structure and local adaptation of the pine cone weevil Pissodes validirostris (Coleoptera, Curculionidae): disentangle the role of the host-plant from the geography	Géraldine Roux	France	2959
D7	124	Digestion in the spruce bark beetle (lps typographus (L.)). Cellulases present	Kristyna Stefkova	Czech Republic	3163
D7	125	A simple non-destructive method for detecting heart rot in standing trees using impact resonance frequency	Hiroshi Suyama	Japan	753
D7	126	Field evaluation of Metarhizium anisopliae formulations for management of Ailanthus defoliator, Eligma narcissus Cramer	Sasidharan T.O.	India	665
D7	127	Critical Thermal Limits for the Southern Spread of the Gypsy Moth	Kristine Grayson	USA	3852
D8					
D8	001	Mammal trade for zootherapeutic and mythic purposes in Benin (West Africa): capitalizing species involved, provision sources and implications for conservation	Chabi Djagoun	Benin	730
D8	002	Conservation of wildlife outside protected areas in community forests in Nepal	Madhu Ghimire	Nepal	1440
D8	003	Stable carbon isotope analysis of the diets of West African bovids in Pendjari Biosphere Reserve (Northern Benin)	Chabi Djagoun	Benin	728
D8	004	Evaluation of the efficacy of pepper-grease fence to prevent elephant crop raiding on farms around Kakum National Park , Ghana	Edward D. Wiafe	Ghana	1470
D8	005	How to make burning of Chocolate Hills of Bohol, Philippines carbon neutral?	Nathaniel Bantayan	Philippines	55
D8	006	Assessment of management effectiveness of six National Forests in Brazil	Antonio Batista	Brazil	2103
D8	007	Assessing the trail condition and environmental factors of the Kumano Pilgrimage routes in the Kii Mountains, Japan	Shiwei Gou	Japan	1674

		Seed producer candidate tree selection of Bertholletia excelsa H. B.			
D8	008	K. in degraded areas and forest fragments, Peru Southeast Amazon	Germán Correa	Peru	3765
D8	009	The roles of protected areas to biodiversity conservation and carbon storage: case study of two developing countries	Victor Adekunle	Nigeria	1696
D8	010	Integrating data at multiple scales to assess national synergies between forest carbon and biodiversity in Colombia	Dolors Armenteras	Colombia	2938
D8	011	Evapotranspiration (ET) as an ecosystem service: why we should care about precipitation recycling	David Ellison	Sweden	2202
D8	012	Does biodiversity make a difference? Evolutionary diversity indicators of forest ecosystem function across broad regions	Kevin Potter	United States	708
D8	013	Can capturing global ecosystem service values reduce poverty?	Bruno Salomon Ramamonjisoa	Madagascar	2950
D8	014	Biotic homogenization and differentiation of the flora within man- made and near-natural habitats across urban green spaces in Shenzhen, China	Chongfeng Gong	United States	3285
D8	015	Landscape of vulnerability: forest cover change and fragmentation in Istanbul, Turkey	Zerrin Inan	Turkey	2595
D8	016	Relationships between vegetation, tree canopy composition and soil in canopy gaps in dry pine Pinus sylvestris stands	llze Jankovska	Latvia	2110
D8	017	Quantifying carbon reduction services by urban landscape trees in Korea	Hyun-Kil Jo	Republic of Korea	1120
D8	018	Tree census and diversity issues of urban forest of Chandigarh India – an update	Ravinder Kohli	India	1286
D8	019	Maintenance of urban forest biodiversity of Boa Vista, North Amazon, Brazil	Everaldo Lima Neto	Brazil	3486
D8	020	Ecological role of forests fragments in Antananarivo urban area	Harifidy Rakoto Ratsimba	Madagascar	2594
D8	021	Spatial and temporal change of litterfall in the Nanjenshan Lowland Rain Forest, Taiwan	Chia-Ho Kuo	China-Taipei	276
D8	022	Building resilience from the bottom up: the soil's role in regulating forest health in British Columbia, Canada	Anya Reid	Canada	2235
D8	023	Tree species, decay class, ecosite classification and dead wood decomposition rates in the mixedwood boreal forest of Canada	Linhao Wu	China	3512
D8	024	Designing innovative silvicultural best practices to increase multi- taxa biodiversity in Natura 2000 priority habitats (9210* and 9220*) Apennine beech forests	Anna Barbati	Italy	1715
D8	025	Performance and potential of landscape level biodiversity conservation for climate change adaptation and mitigation in Nepal	Ram Prasad Lamsal	Nepal	1343
D8	026	Forest planners' perception of future landscape trajectories - A case study in a French forested mountainous region	Sandra Luque	France	3211
D8	027	Application of cost-benefit analysis to estimate the value of the protection function of forests against rockfall	Sylvain Dupire	France	2840
D8	028	Biodiversity conservation on private lands: a comparative study of the USA and Europe	Daowei Zhang	United States	1692
D8	029	Investigating the photosynthesis rate of selected framework species for carbon sequestration in restored forest in Thailand	Kanlayarat Jantawong	Thailand	1530
D8	030	Trial of one year containerized seedlings for recovering tide-water control forest destroyed by tsunami	Yukihito Ochiai	Japan	1372
D8	031	The recovery of forest understory in new forests on former agricultural lands – planted versus naturally regenerated stands	Tea Tullus	Estonia	1533

D8	032	Tree diversity and soil nutrient studies of logged-over forest in Peninsular Malaysia	Mohd Nazip Suratman	Malaysia	1433
D8	033	Temperature effects on tree and birds richness in a managed forest for timber in East Amazonia (Brazil)	Miguel Angel Quimbayo Cardona	Colombia	3485
D8	034	Forest structure and biodiversity of managed tropical rainforest for timber in East Amazonia (Brazil)	Miguel Angel Quimbayo Cardona	Colombia	3496
D8	035	Tree species diversity and abundance as indicators of understory diversity and abundance in French mountain forests: variations in ecological space	Frédéric Gosselin	France	1992
D8	036	Seasonal changes in understory composition on Mt. Joongwang, Korea	Pil Sun Park	Republic of Korea	1655
D8	037	Carbon and nitrogen storage in monoculture and mixed plantation stands of nitrogen-fixing tree species in subtropical China	Zuomin Shi	China	987
D8	038	Evaluation of broad leaf tree diversity in artificial forests at the landscape level	Yozo Yamada	Japan	1447
D8	039	Validation of a landscape-scale habitat suitability model and map for the Oregon slender salamander	Deanna Olson	United States	1274
D8	040	Saproxylic Diptera biodiversity and intensive biomass harvesting, what are the implications of a damaged deadwood profile?	Robert Jon Deady	Canada	3466
D8	041	Coarse woody debris characteristics: a case study in a 9-ha old- growth cold-temperate coniferous forest plot from Great Hing'an Mountains, Northeastern China	Hui-Yan Gu	China	3653
D8	042	Restoring ecological legacies in boreal Sweden: a saproxylic beetles perspective	Ruaridh Hägglund	Sweden	2911
D8	044	Arthropods and flooding affect microbial communities in dead wood	Michael Ulyshen	United States	1066
D8	045	Comparative analysis of different dead woods from old growth and managed Scots pine forests	Parvathy Venugopal	Finland	2675
D8	046	Methods for quantifying root dynamics for forest carbon studies-a review	Shalom Daniel Addo- Danso	Canada	1518
D8	047	Soil respiration across different scales and successional time scales in boreal mixedwood forests	Oluwabunmi Akande	Canada	3607
D8	048	Foliage and root contribution to SOC pools in Utah forest soils.	Antra Boca	United States	3397
D8	049	Spatial distribution of root biomass of Pinus Massoniana plantation in Three Gorges Reservoir Area, China	Ruimei Cheng	China	1009
D8	050	Estimating fine root biomass of Pinus densiflora using soil core sampling and minirhizotron techniques	SeungHyun Han	Republic of Korea	1587
D8	051	Different allocation patterns of 18 chemical elements in leaves, branches and different root branch orders across 18 species in Gurbantünggüt Desert in China	Zeqing Ma	China	3188
D8	052	Behaviour of roots of savanna species in the Pantanal wetlands, Brazil	Suzana Salis	Brazil	3146
D8	053	Free Air Humidity Manipulation (FAHM) experiment in Estonia provides new knowledge of climate change effects on Northern forests	Arvo Tullus	Estonia	2104
D8	054	Radiocesium contamination in Satoyama forests in Kashiwa city, suburb of the Tokyo metropolitan area	Kenji Fukuda	Japan	2419
D8	055	Seasonal change of cesium 137 in different age needles and male flowers of Japanese cedar (Cryptomeria japonica) in Fukushima	Tsutomu Kanasashi	Japan	2458
D8	056	Radiocesium inventory of forested land in Japan just before Fukushima Daiichi Nuclear Power Plant accident	Satoru Miura	Japan	1422
D8	057	Predominant factor in the depth profile in forest soil of radiocesium, released by the Fukushima Daiichi Nuclear Power Plant Accident	Yoshito Sasaki	Japan	1749

D8	058	Acquisition of radioactive cesium in the stems of trees in Japan	Tsutomu Takano	Japan	1137
D8	059	Impact of forest vegetation on long term recycling of radionuclides at polluted sites	Yves Thiry	France	423
D8	060	Transport of Cs in Japanese bamboo - perspective on decontamination of radiocesium from bamboo forests	Mitsutoshi Umemura	Japan	2332
D8	061	Transportation of radiocesium from forest to agricultural fields	Hirohisa Yoshida	Japan	2283
D8	062	Radioactive contamination of aquatic animals in stream impacted by the Fukushima nuclear power plant accident	Mayumi Yoshimura	Japan	983
D8	063	Accumulation of Cs-137 by higher fungi after the accident on the Chernobyl NPP	Nataliia Zarubina	Ukraine	1231
D8	064	Carrying out of remediation of forest soils with use of fruit bodies of the higher fungi	Nataliia Zarubina	Ukraine	1547
D8	065	Scenarios of future climate for the Camagüey province, Cuba. Possible influence on the forest plantations of Mediterranean distribution	Lorge Acosta	Cuba	478
D8	066	Sex-related, growth-climate association of Araucaria angustifolia in subtropical planted forests in Argentina	Stella Bogino	Argentina	659
D8	067	Opportunities for climate change mitigation through afforestation and reforestation of degraded lands in the sub-Saharan Africa	Tolulope Daramola	Nigeria	28
D8	068	Vegetation change in Boundou Natural Community Reserve, Region of Tambacounda/Senegal from 1974 to 2010	Faye Laurice Codou	Senegal	1252
D8	069	Variation of FMA fire danger index due climate change in Paraná State, Brazil, in the period 2010 to 2100	Antonio Batista	Brazil	447
D8	070	Evaluation of the climate influence in the forest fire occurrences in the Lichinga district, northern of Mozambique	Antonio Batista	Brazil	634
D8	071	Characterization of fine fuels in grass-woody steppe in Paraná State, Brazil	Antonio Batista	Brazil	2981
D8	072	The season, severity, and frequency of prescribed fire shaping the community dynamics of heathland shrub species	Matthew Chick	Australia	1566
D8	073	Vegetation greenness and nebulosity in Central Africa	Valery Gond	France	1042
D8	074	The chain of climate change, forest fires, runoff and erosion: key processes, mitigation prospects, and information needs	Lee MacDonald	United States	3760
D8	075	Historic forest fires as influenced by climate, vegetation, and man in boreal Scandinavia	Jorund Rolstad	Norway	2496
D8	076	Drought-induced canopy collapse triggers increased fuel loadings: implications for fire behaviour in a Mediterranean-type eucalyptus forest	Katinka Ruthrof	Australia	2424
D8	077	Weather radar: an efficient tool for forest fire detection	Ernandes Saraiva	Brazil	2005
D8	078	Potential vegetation dynamics under climate change in a semi-arid ecosystem in the Western United States	Rupesh Shrestha	United States	3180
D8	079	Diversity, composition and distribution: how fire influences the shrubby understory both now and in the future	Helen Vickers	Australia	1827
D8	080	The reconstruction of the fire behaviors and its effects in the Melaleuca Peat Forest Wildfire, Nakorn Sri Thamarat, Thailand	Kobsak Wanthongchai	Thailand	1629
D8	081	Caloric values of species utilized in the composition of fuel breaks of Brazil	Antonio Batista	Brazil	1263
D8	082	Mastication effects on fuels, plants, and soils in four western U.S. ecosystems: trends with time-since-treatment	Michael Battaglia	United States	2095
D8	083	Quantifying management priorities in urban interfaces threatened by wildfires	Mario Elia	Italy	426

		Spatial analysis of forest fire and burnt area in the Northwest	Harifidy Rakoto		
D8	084	of Madagascar: role in forest management and biodiversity conservation	Ratsimba	Madagascar	967
D8	085	Investigation of emissions from heated essential-oil-rich fuels	Fengjun Zhao	China	271
D8	086	Influencing factors on early vegetation restoration in burned area of Pinus pumila – larch forest	Fengjun Zhao	China	273
D8	087	Wood anatomy and dendroclimatological potential of trees of the dry tropical forests of Colombia	Ana Briceño	Colombia	732
D8	088	Climatic effects on teak growth in Northern Thailand	Pichit Lumyai	Thailand	2498
D8	089	Climate change impacts on forests and biodiversity in Western Himalaya of Nepal	Dhananjaya Lamichhane	Nepal	496
D8	090	The impact of a changing climate on net primary production of Mediterranean forests in southwest Western Australia	George Matusick	United States	1777
D8	091	Simulating the dependence of aspen net primary productivity on redistributed snow	Ben Soderquist	United States	2071
D8	092	The spatial extent of peatland as a response to climatic and topographic factors	Jogeir N. Stokland	Norway	2586
D8	093	Temperature and UV-B radiation affect bud phenology in Populus tremula	Christian Bianchi Strømme	Norway	2760
D8	094	Rainbow water and influence of terrestrial evapotranspiration on downwind rainfall patterns: emerging scientific evidence and complex geopolitics	Meine van Noordwijk	Indonesia	3471
D8	095	A matter of scale? Predicting the distribution of shrub species at the local or landscape level using a national dataset	Helen Vickers	Australia	1831
D8	096	Changes in dimensions and zones occupied by native species of the Southern Rain Forest in Brazil due to global climate change	Marcos Silveira Wrege	Brazil	2713
D8	097	Estimation of uncertainty for carbon emission factors by major species in Korea	Jae Soo Bae	Republic of Korea	1160
D8	098	Dendrometric indicators of understory vegetation along ecological gradients: do nonlinear models outperform linear ones?	Frédéric Gosselin	France	1052
D8	099	Estimating uncertainty for measurements of long-term climate impacts on forested ecosystems across the continent	Jeffrey Taylor	United States	2901
D8	100	Structural and compositional patterns in forest communities in the Intermountain West	Marcella Windmuller- Campione	United States	1064
D8	101	Biomass and carbon stores estimated in 2011 and 1934 at Priest River Experimental Forest, northern Idaho, USA	Liang Wei	United States	3869
D8	102	Carbon flux of down woody materials in forests of the eastern United States	Christopher Woodall	United States	125
D8	103	Larch forest in northeastern China: carbon sink capacity and soil importance	Wenjie Wang	China	1864
D8	104	Adaptive forest management – the key for forest adaptation to climate change?	Andreas Bolte	Germany	2783
D8	105	Adaptive water-oriented forest management using BIOME-BGC in Mediterranean Aleppo pine plantations	Alberto García Prats	Spain	1911
D8	106	Forest adaptation to climate change in Iran	Mostafa Jafari	Iran	338
D8	107	Dieback of evergreen coniferous forests due to climate change in Korea and their management options for adaptation	Jong Hwan Lim	Republic of Korea	2440
D8	108	Forest vulnerability to climate change in Iran	Mostafa Jafari	Iran	337
D8	109	Adapting forest ecosystems in Kailash Sacred Landscape of Hindu Kush Himalayas for sustained flow of ecosystem services	Rajan Kotru	Nepal	2051

D8	110	Sustainable Wetlands Adaptation and Mitigation Program (SWAMP)	Randall Kolka	United States	436
D8	111	Development of capacity building program in Thailand and Myanmar for combating desertification, land degradation and drought	Ho Sang Kang	Republic of Korea	767
D8	112	Collaborative research to combat desertification in arid and semi-arid areas	Hoduck Kang	Republic of Korea	813
D8	113	The species diversity of the steppes and the Sahara desert: central and southern Tunisia	Myeong Ja Kwak	Republic of Korea	2390
D8	114	Effects of plug cell trays, soil components and shading rates for seed germination and growth of Hippophae rhamnoides	Songhee Lee	Republic of Korea	2678
D8	115	Dynamic variation of the rainfall infiltration in the deep soil of the drifting sand in main deserts (lands) of China	Wenbin Yang	China	919
D8	116	Long-term variation of coefficients of peak discharge in a small watershed, in association with forest restoration and succession on denuded hills	Mie Gomyo	Japan	759
D8	117	Mitigating effects on run-off chemistry after final felling using forest buffers	Lars Högbom	Sweden	2753
D8	118	The Mica Creek Project: A comprehensive assessment of environmental effects of contemporary harvest practices in the interior Pacific Northwest, USA	Timothy Link	United States	907
D8	119	Water volume and sediment impacts of forest-based biomass site preparation and planting	Jami Nettles	United States	3117
D8	120	Responses of vegetation activity and water balance to changing climates in sub-alpine large-scale watershed of south-east Tibetan plateau	Pengsen Sun	China	400
D8	121	Examining drivers of long-term trends in evapotranspiration in forested small catchments in the northeastern USA	Matthew Vadeboncoeur	United States	2286
D8	122	Effects of wildfire on storm hydrographs	Joseph Wagenbrenner	United States	3488
D8	123	Long-term changes in climate, forest vegetation, and streamflow in the Priest River Experimental Forest, northern Idaho	Liang Wei	United States	3469
D8	124	A quantitative analysis of hydrological variability associated with afforestation of degraded croplands in South China	Pengtao Yu	China	1606
D8	125	The influence of thinning on tree-water relations in an Aleppo pine forest in Valencia, Spain	Antonio D Del Campo	Spain	1995
D8	126	Eddy-covariance-based estimates of carbon balance in two tropical seasonal forests in Thailand	Sapit Diloksumpun	Thailand	2344
D8	127	Relevance of pedotopographical indicators in the assessment of spatial distributions of soil depth and soil water resources under forest stands	Francois Ridremont	Belgium	143
D8	128	Relevance of Lidar canopy and relief indicators in the assessment of spatial distributions soil water resources under forest stands	Francois Ridremont	Belgium	144
D8	129	A comparative study on evapotranspiration of the same trees in urban forests and individual tree using Lysimeter method	Jun Teshirogi	Japan	2690
D8	130	Climate signals derived from day-to-day analysis: climate sensitivity of Picea abies in Northern Italy (Trentino – Eastern Alps)	Roberto Tognetti	Italy	1074
D8	131	PES: the watershed services of tropical forest	Ismariah Ahmad	Malaysia	1748
D8	132	Spatial characteristics of physicochemical parameters of a reservoir adjoined by degraded watershed forest	Adejoke Akinyele	Nigeria	90
D8	133	Forests and the hydrological regime: what can we tell policy-makers about how changing tree cover influences runoff	Kevin Bishop	United States	3223

D8	134	Model-based assessment of land-use / land-cover change on water quality and economic outcomes in an agricultural watershed in north-central Portugal	Daniel Hawtree	Germany	2863
D8	135	Water erosion vulnerability of upland watersheds under different forest covers in the Chittagong Hill Tracts, Bangladesh	Md. Mohitul Hossain	Germany	507
D8	136	Flood generating areas: how much is land use/cover responsible?	Latif Kalin	United States	2251
D8	137	Short-term variability of the spring and stream water chemical composition in catchment with different antropopressure (Carpathian, southern Poland)	Stanisław Małek	Poland	3430
D8	138	Interaction on land use changes to hydrological characteristics of Mae Klong Head Watershed, western Thailand	Dokrak Marod	Thailand	2877
D8	139	Quantification of water related ecosystem services in watershed planning	Betül Uygur	Turkey	1525
D8	140	The impact of forest vegetation change on water yield in the subalpine region of southwestern China	Yuandong Zhang	China	290
D8	141	Interception loss, throughfall and stemflow in Tamaulipan Thornscrub at species level, Northeastern Mexico	Israel Cantu Silva	Mexico	414
D8	142	Priority areas for water recharge in temperate forest ecosystems in Mexico	Patricia Hernández-de la Rosa	Mexico	2262
D8	143	The effect of plant cover on alimentation areas on spring water chemistry in South of Poland	Stanisław Małek	Poland	2115
D8	144	Effects of historic forest disturbance on water quality and flow in the Interior Western US	Marek Matyjasik	United States	3883
D8	145	Towards optimized buffer zones - digital terrain indices as a tool for predicting the most sensitive areas	Anneli Ågren	Sweden	1736
D8	146	Environmental fragility of the Iguaçu River Watershed, Paraná, Brazil	Ana Paula Dalla Corte	Brazil	1047
D8	147	Restoring the eco-hydrological function of the forest on a small karst island: case study on Nusa Penida Island, Bali (Indonesia)	Budi Hadi Narendra	Indonesia	979
D8	148	Enabling environmental excellance in Alberta through Lidar derived wet areas mapping	Barry White	Canada	3103
D8	149	The role of poplar plantations on biodiversity in riparian landscapes	Julio Javier Diez- Casero	Spain	2148
D8	150	Site conditions of grey mangrove (Avicennia marina) at Nayband National Marine Park	Esmaeil Kouhgardi	Iran	616
D8	151	Insect plant relationships and the role of insects in mangrove conservation	Remadevi O.K.	India	3177
D8	152	Ecosystem response 20 years after intensive forest harvesting for bioenergy in Betula papyrifera stands in Central Newfoundland: a multidisciplinary approach	André Arsenault	Canada	3193
D8	153	Removing forest harvesting residuals: effects on biodiversity and species composition in Norwegian forests	Tonje Økland	Norway	2735
D8	154	Effectiveness of compensation for habitat loss at intensified forestry by creation of dead wood	Jörgen Rudolphi	Sweden	1914
D8	155	Short-term impact of whole tree harvest at thinning on cation dynamics in a Japanese cedar forest ecosystem	Tsuyoshi Yamada	Japan	2542
	156	Life cycle evaluation of forest sector greenhouse gas emissions sensitivity to changes in forest management in Maine (USA)	Thomas Buchholz	United States	3290
D8					
D8 D8	157	Bioenergy Production and Soil Sustainability in the Pacific Northwest USA	Rob Harrison	United States	2030

D8	159	Impact of whole-tree harvesting on water quality and quantity from drained peatland forests in Finland	Liisa Ukonmaanaho	Finland	1885
D8	160	A sustainability assessment of wood-energy-supply-chains based on the method of a life-cycle-assessment	Martin Brunsmeier	Germany	2137
D8	161	Life cycle carbon and economic assessment of biochar-based bioenergy production in Ontario, Canada	Krish Homagain	Canada	171
D8	162	Ethnobotany and structure of natural stands of plant toothbrush species in Southern and Central part of Benin	Jean Didier Akpona	Benin	741
D8	163	Density and regeneration of Carapa guianensis Aublet. in floodplain forests of the Amazon estuary in Amapá State, Brazil	Ana Cláudia Lira- Guedes	Brazil	2890
D8	164	Operational efficiency of the containerized seedlings planting machine	Yukihito Ochiai	Japan	682
D8	165	Enhanced accumulation of Hg in aquatic biota: an effect from forestry and landuse?	Staffan Åkerblom	Sweden	2875
D8	166	Studying deep root dynamics with disaggregation modelling using SIMILE: fine root dynamics for an east central Amazonian moist tropical forest	Elemer Briceño	Costa Rica	2231
D8	167	Environmental responses and biophysical controls over transpiration by stands/trees subject to urban, suburban and semi-arid environmental conditions	Lixin Chen	China	2958
D8	168	Stand transpiration estimated by sap flow measurements in a mixed broadleaved forest, western Japan	Chen-Wei Chiu	Japan	2375
D8	169	Effects of forestry on mercury runoff in catchment-scale studies in Sweden	Karin Eklöf	United States	2817
D8	170	Fate and transport of mercury in watersheds: Hot-spots and hot- moments in Pennsylvanian watersheds	Karin Eklöf	United States	2879
D8	171	Establishment of hydrometeorological stations in national power corporation-managed reservations	Angelito Exconde	Philippines	647
D8	172	Estimating and extracting the optimal parameters of random walk model for debris flow hazard mapping	Changwooo Lee	Republic of Korea	3615
D8	173	Forest vs. oil palm: the differences in plant water use	Alexander Roell	Germany	1355
D8	174	Hydro-climatic variation and its interactions with landscape units in the Brazilian Pantanal, South America	Márcia Toffani Simão Soares	Brazil	2761
D8	175	Fluvial water quality and forest cover in southern Brazil	Marcos Silveira Wrege	Brazil	2157
D8	176	Structure and floristic composition of the cloud forest on Cocos Island National Park	Luis Guillermo Acosta Vargas	Costa Rica	3508
D8	177	Assessment of tree species diversity and growth analysis of trees species in Igbo-Olodumare, Ondo State, Nigeria.	Aladesanmi Daniel Agbelade	Nigeria	1383
D8	178	Relation between soil type and potential of regeneration in vegetation pattern of Sudanian zone	Emeline P.S. Assede	Benin	173
D8	179	Island size, isolation, and forest ground beetle (Coleoptera: Carabidae) diversity on the fire-prone landscape of Lac La Ronge	Aaron Bell	Canada	2898
D8	180	Flowering and fruiting phenology and floral visitation of four native tree species in the remnant moist Afromontane forest of Wondo Genet, south central Ethiopia	Mamo Kebede Beshawored	Finland	1332
D8	181	Phenological evaluation of five commercial forest species of ecological importance in the forests of the Department of Tolima, Colombia	Jeimy Lorena Bonilla Vargas	Colombia	326
D8	182	Response of small individuals of hardwood species to surface fires in western Chaco region, Argentina	Sandra Bravo	Argentina	3497

D8	183	Understory, ferns and lianas as indicators of the conservation status in remnants of Brazilian Atlantic Rain Forest	Eliana Cardoso-Leite	Brazil	2705
D8	184	Community characteristics and species diversity of Castanopsis fargesii community in Three Gorges Reservoir Area in China	Ruimei Cheng	China	1110
D8	185	Insect diversity and conservation of Nurod Urod Forest Reserve in Sabah, Malaysia	Y. C. Arthur Chung	Malaysia	563
D8	186	Response of ground-beetle (Carabidae) assemblages to harvest and wildfire in lodgepole pine forests of western Alberta, Canada	Vincent Del Bel Belluz	Canada	3151
D8	187	How green are forest fragments inserted into tropical agricultural landscapes? Implications for ecosystem services provisioning	Silvio Ferraz	Brazil	1250
D8	188	Long- and short-term hydrogeomorphic processes alters the spatial variability of soil carbon and nutrient accumulations in headwater catchments of Japan	Takashi Gomi	Japan	2447
D8	189	Invasive North American beaver (Castor canadensis) habitat selection and impact in Tierra del Fuego, Argentina	Jonathan Henn	Argentina	818
D8	190	Fungal succession after fire in Cistus ladanifer L. ecosystems	María Hernández- Rodríguez	Spain	2637
D8	191	Fungal production after fire in Pinus pinaster stands using classificatory models	María Hernández- Rodríguez	Spain	2646
D8	192	Debarking of trees by deer are affected by deer density, tree size, species palatability, and maximum snow depth	Hayato lijima	Japan	2406
D8	193	Evaluating vegetation complexity at different site condition of subtropical forest of Okinawa Island Japan	Noor Jemali	Japan	1630
D8	195	Epiphytes on Pinus mugo introduced around 1850 from the Alps to Danish coastal dune systems	lb Johnsen	Denmark	936
D8	196	Spiders as indicators to evaluate the changes of a Pinus taeda plantation in a grassland biodiversity in Uruguay	Carolina Jorge	Uruguay	2320
D8	197	Influence of forest management strategies and environmental conditions on epigeic arthropod biodiversity	Claudio La Rocca	Canada	3667
D8	198	Forest succession stagnation in southern Brazil forests – the role of bamboos	Andre Lacerda	Brazil	1904
D8	199	Fine woody debris (FWD) and biodiversity in managed forests: effects of the spatial distribution of FWD on invertebrates, small vertebrates, fungi, and plants	Melanie J. McCavour	Canada	2169
D8	200	Interspecific tree competition and functionality in tropical dry forest environments in the Alto Magdalena region, Colombia, South America	Omar Melo Cruz	Colombia	151
D8	201	The role of landscape connectivity on terrestrial mammal conservation in a fragmented tropical rainforest	Sergio Nicasio	Mexico	2365
D8	202	Effect of woody and shrub plants with different patch size on selected soil chemical properties in semi-arid lands	Mehmed Said Özçelik	Turkey	1793
D8	203	Species and ecosystem diversity at Sacred Mountain National Park for habitat conservation in Marawi City, Philippines	Nelson Manguiat Pampolina	Philippines	3798
D8	204	Small scale distribution in ground-dwelling arthropods reveals big picture patterns	Jaime Pinzon	Canada	2322
D8	205	Termite richness in Pinus caribaea Muell. plantations in the Colombian Orinoquia	Olga Pinzon	Colombia	3558
D8	206	Ground beetles (Coleoptera, Carabidae) assemblage in forests plantations of the Colombian Orinoquia	Olga Pinzon	Colombia	3594
D8	207	Ecophysiology of seedling banks of tree species in contrasting environments of tropical rainforests in the Columbian Chocó Bioregion	Nathaly Rodríguez Santos	Colombia	220

D8	208	Distribution of woodland key habitats in Norwegian landscapes.	Magne Saetersdal	Norway	937
D8	209	Dynamic forest of tree species in a fragment of mata atlantica rainforest	Rita Sampaio	Brazil	3655
D8	210	Evaluation of soil anti-erodibility Eucalyptus grandis forest land	Keyin Sheng	China	2339
D8	211	Which factors can explain changes in the distribution range of Mimusops andongensis Hiern in Benin?	Koupamba Gisèle Sinasson Sanni	Benin	1834
D8	212	Floral biodiversity with special emphasis on forest dieback in Dothalugala, Knuckles Forest Range, Sri Lanka	Bandumala Suduhakuruge	Sri Lanka	639
D8	213	Spatial distribution and demographic structure of the critically endangered Dipterocarpaceae in fragmented habitat in Malaysia	Mohd Nazip Suratman	Malaysia	2096
D8	214	Dynamics of physicochemical parameters during secondary succession of forest in the Cataniapo river basin, Amazonas state, Venezuela	Pedro Villa	Venezuela	2225
D8	215	The species and functional diversity variation along secondary succession of tropical lowland rain forest on Hainan Island, China	Runguo Zang	China	223
D8	216	Impacts of increasingly intensive removal of forest biomass on the biodiversity of leaf litter invertebrates	Timothy Work	Canada	3578
D8	217	Biomass and carbon sequestration of selected natural mangrove forests in the Philippines	Jose Alan Castillo	Philippines	1600
D8	218	Study on tropical Sudanian area major agroforestry landscape pattern involvement in carbon sequestration balance in Togo	Fousseni Folega	Togo	189
D8	219	Soil carbon storage in different species dominance of Sarawak Mangrove Forest, Malaysia	Seca Gandaseca	Malaysia	227
D8	220	Frost pocket effect results in severe canopy damage in a Mediterranean-type forest in southwestern Australia	George Matusick	Australia	2362
D8	221	Knowing the past to anticipate the future: soil charcoal as a proxy to model the evolution of tropical forests	Julie Morin-Rivat	Belgium	2046
D8	222	The influence of forest tree mixture on the potential of carbon storage in Hyrcanian forest	Maryam Salehi	Iran	415
D8	223	Influences of meteorological variables on the diametric growth of Araucaria angustifolia (Bertol.) O. Kuntze in Southern Brazilian Highlands	Carlos Sanquetta	Brazil	1050
D8	224	Spatiotemporal distribution of rainfall at NTU Experimental Forest for climate change in central Taiwan	Chiang Wei	China-Taipei	2739
D8	225	Determination of soil carbon sequestration by using humic content in pure and mixed stands of beech in Kheyroud forest/ Iran	Ghavamudin Zahedi Amiri	Iran	417
D8	226	Changes in carbon density for three old-growth forests on Changbai Mountain, Northeast China	Li Zhou	China	208
D8	227	Potassium availability in smectitic soils under Gmelina arborea and Pachira quinata plantations of tropical dry forest in North Colombia	Martha C. Henao	Colombia	2512
D8	228	Spatial data mining application in forest fire assessment in tropical peat areas	Ahmad Nuruddin	Indonesia	861
D8	229	Effects of tree species and mixture on soil C sequestration and greenhouse gases emissions in subtropical plantations	Hui Wang	China	411
D8	230	Spatial heterogeneity of soil available nutrients in black willow plantation in Gonghe Basin, Qinghai-Tibet Plateau	Ya Juan Zhu	China	1578
D8	231	The assessment techniques of desert ecosystem services in China	Hao Guo	China	2305
D8	232	Where will forest loss occur? Identifying attractors of forest loss in temperate ecosystems of south-central Chile	Adison Altamirano	Chile	2741

03					
D9	001	Developing an integrated REDD+ policy package to effectively address deforestation in Indonesia	Manahan Parlindungan Saragih	Indonesia	2957
D9	002	Response in forest policy as a result of reduced risk of stream salinity associated with timber harvesting in a changing climate	Geoff Stoneman	Australia	64
D9	003	Formulating a proposal for a strategy to prevent and control fires in protected areas by means of governance criteria	Walter Benjamín Rivera Coria	Bolivia	248
D9	004	Current status and potentialities for forest certification in Vietnam	Hai Hoang	Japan	2349
D9	005	Emerging role of jurisprudence in shaping forest management in India	Monika Singh	Canada	2276
D9	006	Discourse strategy and action option: the natural reserve and peasants under the "fishing and grazing ban" policy	Yiwen Zhang	China	3028
D9	007	Collaborative forest governance of a community forest in western Canada: what is the role of social learning?	Felicitas Egunyu	Canada	2992
D9	008	Capacity development needs assessments for improved governance of community forestry	Martin Greijmans	Thailand	1235
D9	009	Demonstrating for community forestry: addressing the fundamental challenges of sustainable forest management in Asia?	Martin Greijmans	Thailand	2565
D9	010	Analysis of community forestry on rural household economics in the mid-hills of Nepal	Dhananjaya Lamichhane	Nepal	494
D9	011	Behind the scenes – revealing true volume of wood production and markets in a developing economy - case Tanzania	Anne Arvola	Finland	1667
D9	012	Preferences of new forest owners in Serbia	Mersudin Avdibegovic	Bosnia and Herzegovina	2478
D9	013	Small-scale and community forestry: policies behind planting trees movement in Kuningan District, West Java, Indonesia	Ellyn Kathalina Damayanti	Indonesia	1705
D9	014	SWOT analysis of the non-state forest sector in Slovakia	Zuzana Sarvasova	Slovakia	460
D9	015	Efficiency in development cooperation: the experience of the Ibero- American Model Forest Network and its model forests	Ronnie De Camino	Costa Rica	1409
D9	016	Rural livelihood, voluntary partnership agreements and social safeguards in Ghana	Christian Pilegaard Hansen	Denmark	1163
D9	017	Local community participation in forest management in Lombok, Indonesia	In-Ae Kim	Republic of Korea	3543
D9	018	Restoring nature: combining 'new' and 'old' policy instruments in Swedish forests	Katarina Eckerberg	Sweden	1507
D9	019	Multifunctional and integrated forest management in Italy: policy failures and possible solutions	Alessandro Leonardi	Italy	2647
D9	020	Human impact on the land cover in the area surrounded by the centres of past mining	Katarina Merganicova	Slovakia	2598
D9	021	Legacies of historical land use on present forest structure in mixed beech-silver fir forests in Northern Apennines	Renzo Motta	Italy	2600
D9	022	Participatory investigation of the interaction between Sclerocarya birrea and intercrops in Kilosa District, Tanzania	Pilly Kagosi	Tanzania	1917
D9	023	Paradigm shift of forest management of Bangladesh from production to service oriented forest	M. Al-Amin	Bangladesh	140
D9	024	Diversification of pathways for forest transition in China – based on province-level panel data	Ming Liang	China	2899
D9	025	Performance of joint community patrolling at Lawachara National Park, Bangladesh	Md. Nazmus Sadath	Bangladesh	2443
D9	026	Chilean forest SME projection	Hans Grosse	Chile	2882

D9	027	Alternative pathways to sustainability – a framework for comparative forest policy analysis	Karin Beland Lindahl	Sweden	2535
D9	028	The analysis of forest governance and social capital: theoretical and methodological links, gaps and overlaps	Riccardo Da Re	Italy	2582
D9	029	Brazilian forest governance: trends, and obstacles, a proposal to be implemented	Vitor Afonso Hoeflich	Brazil	2312
D9	030	Forest governance: a study on perception of actors involved in the forest management actions in the State Paraná (Brazil)	Vitor Afonso Hoeflich	Brazil	2826
D9	031	International influences on national forest policy: analyzing stakeholder coalitions and their argumentation in the revision of Finnish Forest Act	Pia Katila	Finland	2696
D9	032	Complexity of forest tenure issues and China's collective forest tenure reform	Hexing Long	China	671
D9	033	Examining the impact of governance on the effectiveness of forest protected areas: a systematic review of the evidence	Biljana Macura	Italy	2085
D9	034	Forest policy re-mix: is history bound to repeat itself in the selection and implementation of forest policies and instruments across Latin America?	Kathleen McGinley	United States	3845
D9	035	The Atlántida Platform: a civil-society effort promoting good governance in the Honduran forestry sector	Mirian Molina	Honduras	980
D9	036	State of the principles of good forest governance in Paraguay	Maria Laura Quevedo Fernandez	Paraguay	323
D9	037	Trans-Atlantic governance of sustainable solid wood bioenergy supply chains	CT Smith	Canada	3054
D9	038	Challenges to multi-level sustainability governance of forest bioenergy and impacts for production and trade – global stakeholder views and experiences	Inge Stupak	Denmark	1848
D9	039	Linking science and policy: changing policy maker behavior through action research in forest value chains	Herry Purnomo	Indonesia	1617
D9	040	How ideas, interests and institutions may block or further policy integration. An evaluation of the forest and agricultural sectors in Ghana	Bas Arts	Netherlands	484
D9	041	Forest management in the long-term: participatory scenario evidence from Slovakia	Yvonne Brodrechtova	Slovakia	1623
D9	042	Overview of participatory forestry in China	Jinlong Liu	China	670
D9	043	New national forest policy of Russian Federation: basis for forest sector problems solution	Victor G. Sanaev	Russian Federation	2066
D9	044	Administration and management of state and non-state forests in Romania: one law, two perspectives	Ioan Vasile Abrudan	Romania	3263
D9	045	Legal aspects of non-wood forest products in Western Balkan	Mersudin Avdibegovic	Bosnia and Herzegovina	1765
D9	046	The Kaldor-Hicks Improvement Study on social welfare of state- owned forest areas families under the logging ban of China	Yukun Cao	China	688
D9	047	Reaching out: the role of Argentine Model Forests in the implementation of the federal forest policy	Monica Gabay	Argentina	3299
D9	048	New legislation innovating for natural & planted forest in Iran	Mohammad Masood Ghilichkhani	Iran	361
D9	049	Present and future legal framework of environmental services in Argentina	Clara Minaverry	Argentina	747
D9	050	Maintaining forestry archives for the future	Gillian Petrokofsky	United Kingdom	1936

D9	051	Community wood energy handbook and computer app	Dennis R Becker	United States	453
D9	052	Participatory approach potentials in adoption of agronomic, land and water management technologies in semi arid areas of Tanzania	Pilly Kagosi	Tanzania	1974
D9	053	Managing knowledge in a research organisation: the case of Kenya Forestry Research Institute	Sheila Mbiru	Kenya	2402
D9	054	IUFRO and global forest decimal classification - status and future	Jarmo Saarikko	Finland	1350
D9	055	Network "Forest Culture" in Austria. A new approach to put international agreements into practice for the benefit of local people	Elisabeth Johann	Austria	3065
D9	056	Integrated management of forest goods and ecosystem services to achieve sustainability in forest management (study of mountainous Zagros forest of Iran)	Jalal Henareh Khalyani	Iran	1456
D9	057	Economic instruments to enhance multi-functional forest management of Zagros forests in west of Iran	Jalal Henareh Khalyani	Iran	2643
D9	058	Wildfire economics: historical challenges and future directions for estimating ecosystem service values of fuels management in western U.S. forests	Yeonsu Kim	United States	3461
D9	059	Balancing biomass and biodiversity in protected areas, the Triglav National Park case study	Aleš Poljanec	Slovenia	3273
D9	060	Interrogating safeguards for jurisdictional REDD+: a study of overseas jurisdictional REDD+ offsets in California's Global Warming Solutions Act	Elizabeth Blanchard	United States	2939
D9	061	Deforestation causes in the Huila department of Colombia (A jurisdictional REDD+ approach)	Maria Becerra	Colombia	437
D9	062	Analyzing direct and underlying drivers of deforestation and forest degradation for REDD+ in Cameroon: methodology development and pilot test	Sophia Carodenuto	Germany	573
D9	063	Discount options as a financial instrument supporting REDD+	Andrey Krasovskii	Austria	1925
D9	064	Addressing the drivers of deforestation: exploring synergies between REDD+ and forest policy	Michael Obersteiner	Austria	3450
D9	065	Asymmetric communication between media and stakeholders and its influences to the ineffectiveness of forest fire risk management in Indonesia	Meti Ekayani	Indonesia	1501
D9	066	Adaptation to climate change through community forestry programs – Case studies in vulnerable uplands of the Philippines	Marcin Jarzebski	Japan	2885
D9	067	Sustainability of slash pine forest stands in the southern United States under climate change	Andres Susaeta	United States	1091
D9	068	The value of adaptation to climate change for European forestry	Rasoul Yousefpour	Germany	2991
D9	069	Fully mobilizing forest potential in the Kyoto Process: on potential future convergence across the REDD+ and LULUCF frameworks	David Ellison	Sweden	2821
D9	070	An investigation into the interactions between climate change initiatives in Ghana	Patrick Opoku	Germany	802
D9	071	Cost-benefit analysis of producing and refining cellulosic ethanol from Pennisetum purpureum	Ming-Yuan Huang	China-Taipei	3724
D9	072	Sustainability impact assessment for local bioenergy supply chains' development: the case of the Como Lake area, Italy	Salvatore Martire	Finland	2660
D9	073	Forest, climate mitigation and choice of policy means - how well suited are various bioenergy policies for combating climate change?	Hanne K. Sjølie	Norway	1176
D9	074	Mill capacity to utilize logging residues for bioenergy production in the Southern United States	Raju Pokharel	United States	1989

D9	075	Remuneration of land in forest investment analysis	Vitor Afonso Hoeflich	Brazil	3152
D9	076	Relevant aspects of valuation of land in investment analysis	Vitor Afonso Hoeflich	Brazil	3168
D9	077	Industry perspectives on wood as a structural green building material	Alyson Wade	United States	3431
D9	078	Brazilian national forestry production chain identification based on the 2005 IBGE input-output matrix	Vitor Afonso Hoeflich	Brazil	2201
D9	079	Long-term structural drivers of sawnwood consumption in Europe	Elias Hurmekoski	Finland	1952
D9	080	Development of marketing activities in production of logs in Serbia	Mersudin Avdibegovic	Bosnia and Herzegovina	1739
D9	081	VPA on forest law enforcement governance and trade between Republic of Indonesia and European Union: who gains the benefits?	Dodik Ridho Nurrochmat	Indonesia	1498
D9	082	Conditions at the forestry contractors market in Slovakia	Hubert Palus	Slovakia	1688
D9	083	Wood flow analysis in the Slovak forest industry	Hubert Palus	Slovakia	1750
D9	084	Non-timber forest products income contribution to households economy in Xing'An Mountains forest area	Hongge Zhu	China	1605
D9	085	Is certification contributing to sustainable forest management in British Columbia? A forest practices board perspective	Darlene Oman	Canada	1275
D9	086	Assessment of motivation and attitudes of forest industry companies towards forest certification in North-Western Russia	Maxim Trishkin	Finland	3277
D9	087	The potential of legal timber trade policies to expand demand for US wood products in the Chinese re-exports sector	Ziyi Lu	United States	2384
D9	088	Impact of timber legality policies on US wood importers and their business practices	Benjamin Roe	United States	3812
D9	089	How can forest governance approaches under FLEGT VPA and REDD+ be helpful for each other?	Yitagesu Tekle Tegegne	Finland	2784
D9	090	Integrated ecological and socioeconomic evaluation of valwood agroforestry in Germany and China and its comparative analysis	Shuirong Wu	China	3559
D9	091	Competition for biomass in a declining pulp and paper market with evolving renewable energy policy	Gregory S. Latta	United States	1879
D9	092	Evaluating additionality and leakage issues from voluntary participation in forest carbon offset programs	Gregory S. Latta	United States	1883
D9	093	On the economics of forest carbon: renewable and carbon neutral but not emissions free	Jussi Lintunen	Finland	2716
D9	094	An international examination of tax and accounting rules and the impact on forest land ownership	Tamara Cushing	United States	3355
D9	095	Local team leadership for sustainable development: the case of the model forests of the Ibero-American Network	Ronnie De Camino	Costa Rica	1416
D9	096	Identifying potential sources of conflict in different types of intervention to community land and forests	Martin Greijmans	Thailand	2781
D9	097	Discussion of House Project Bill 30/2011 for Brazilian Forest Code and changes on permanent preservation areas in the Basin of Rio Pardo	Manoela Lopes	Brazil	2818
D9	098	Participation of women in forestry activities: the case of women an invisible workforce in Ecuador	Pablo Pacheco	Indonesia	3634
D9	099	Comparison between Western and Eastern historical views of sustainability (Nachhaltigkeit) principles of forest use	Masami Shiba	Japan	1368