

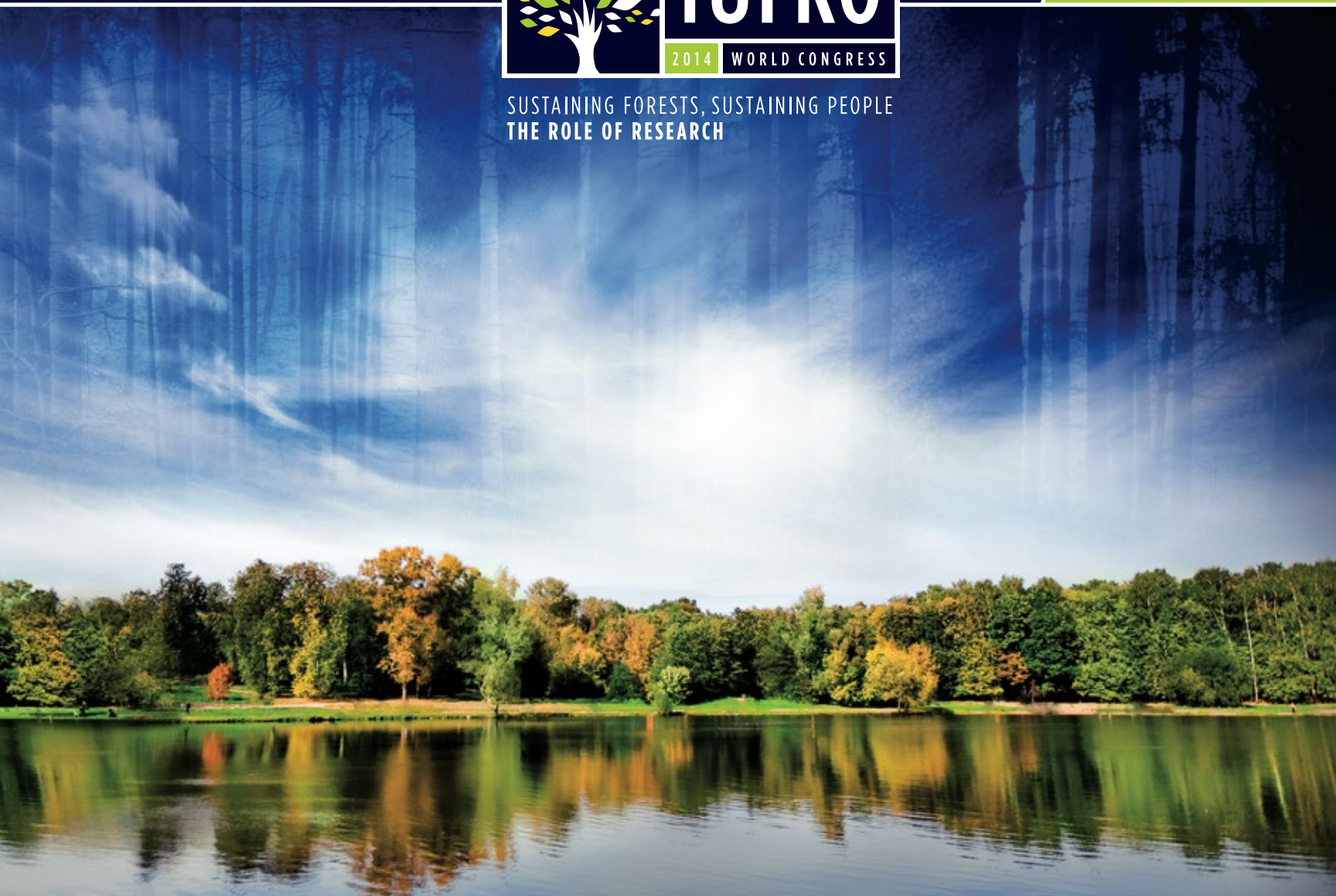


IUFRO

2014 WORLD CONGRESS

2014

SUSTAINING FORESTS, SUSTAINING PEOPLE
THE ROLE OF RESEARCH



International Union of Forest Research Organizations

XXIV WORLD CONGRESS | **OCT 5-11 2014** 
Salt Lake City, USA

PROGRAM

OUTLINE & SCHEDULE



www.iufro2014.com

Patented Technology, Innovative Thinking & 70 years of Manufacturing know-how.

- Haglöf Sweden is the world's largest manufacturer of increment borers. We are proud of our big selection of borer lengths, models, core diameter sizes and brands, all with unique features.
- We also develop, produce and sell a complete instrument range to accurately measure diameters, heights, distances, inclination, age and quality.
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The VLS is an indispensable instrument for height and distance measuring in the forest. The instrument is fast, precise, extra rugged, easy to use and has processing & memory capacity.



Haglöf Sweden borers are available in the largest array of models, lengths and core sizes for all types of trees and wood.



IUFRO/SAF/CIF Exposition, October 8-11, stand 919 and 1016

- Haglöf Sweden & Haglof Inc hope to see you in Salt Lake City in October!
- Welcome - Bienvenue - Willkommen - Bien Venido - Välkommen!

Proud Sponsors of the 9th International Conference of Dendrochronology and the European Dendroecological Fieldweek 2014



www.haglofsweden.com



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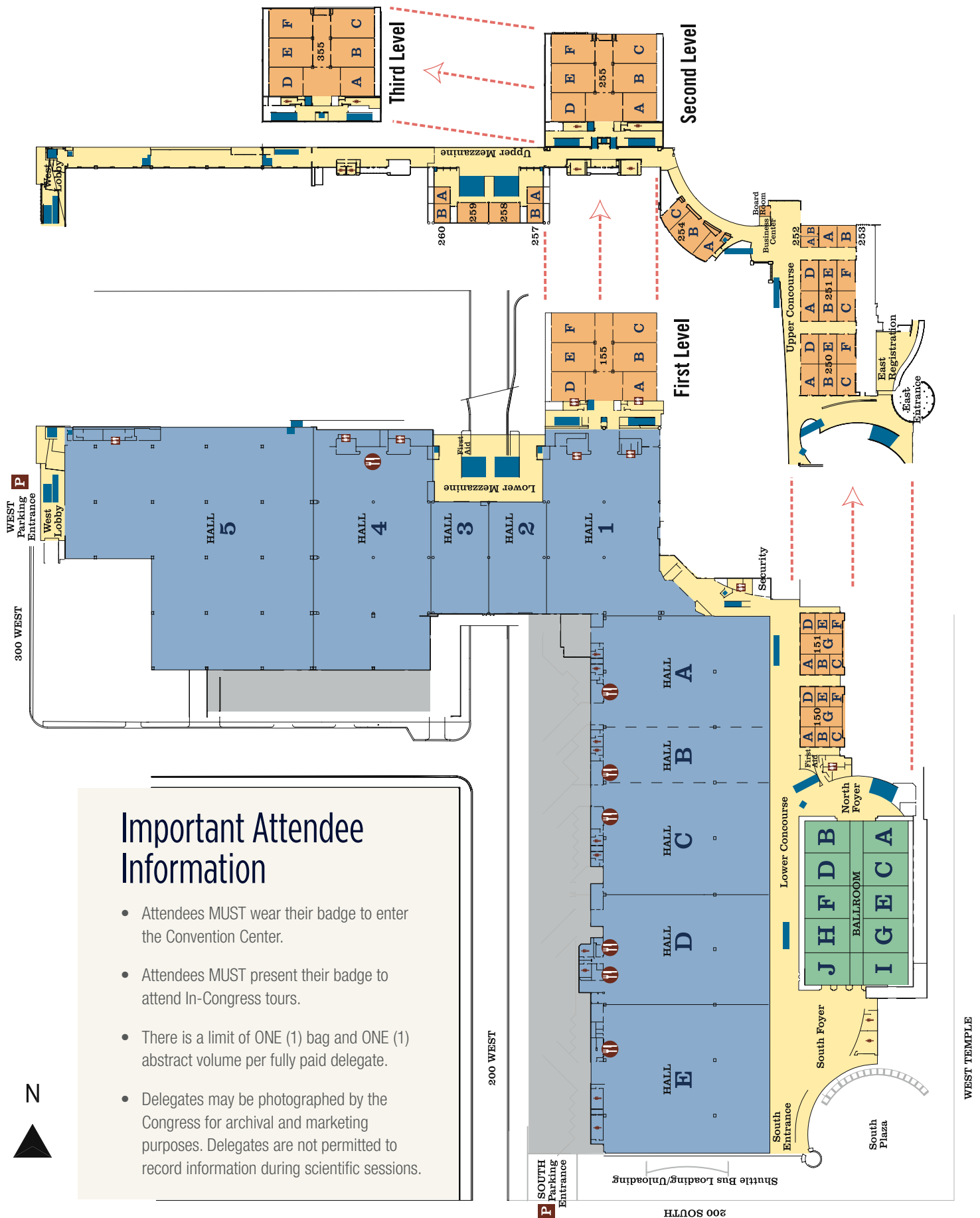


Program Schedule

Registration Hours

Sun, 5 October: 11:00 – 19:00
 Mon, 6 October: 07:00 – 18:00
 Tue, 7 October: 07:00 – 19:00
 Wed, 8 October: 08:00 – 18:00
 Thu, 9 October: 08:00 – 17:00
 Fri, 10 October: 08:00 – 17:00
 Sat, 11 October: 08:00 – 12:00

TIME	SUNDAY OCT 5 th	MONDAY OCT 6 th	TUESDAY OCT 7 th	WEDNESDAY OCT 8 th	THURSDAY OCT 9 th	FRIDAY OCT 10 th	SATURDAY OCT 11 th	TIME
8:00								8:00
8:30								8:30
9:00		Opening Ceremony	Concurrent Technical Sessions		Joint Plenary Keynote Speakers (IUFRO/SAF/CIF) & Concurrent Technical Sessions	Concurrent Technical Sessions	Concurrent Technical Sessions	9:00
9:30								9:30
10:00								10:00
10:30								10:30
11:00		Refreshment Break	Refreshment Break		Refreshment Break	Refreshment Break	Refreshment Break	11:00
11:30		Keynote Plenary Session	Keynote Plenary Session		Joint Plenary Panel Session	Keynote Plenary Session	Keynote Plenary Session	11:30
12:00	Registration Open (11:00-19:00)	Posters	Posters	In-Congress Tours (start and end times vary by tour)	Trade Exhibition & Posters	Trade Exhibition & Posters	Trade Exhibition & Posters	12:00
12:30								12:30
13:00								13:00
13:30								13:30
14:00		Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions		Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions	14:00
14:30	IUFRO Tree Planting Ceremony							14:30
15:00		Refreshment Break	Refreshment Break		Refreshment Break	Refreshment Break	Refreshment Break	15:00
15:30								15:30
16:00								16:00
16:30		Concurrent Technical Sessions	Concurrent Technical Sessions		Concurrent Technical Sessions	Concurrent Technical Sessions	Closing Ceremony	16:30
17:00								17:00
17:30								17:30
18:00	Making the Most of the Congress	Wangari Maathai Award Presentation		Trade Exhibition				18:00
18:30								18:30
19:00		IUFRO Welcome Reception	IUFRO Business Sessions					19:00
19:30								19:30
20:00				International Student Quiz Bowl	Side Events	Side Events & IUFRO Divisional Meetings	Farewell Gala Dinner	20:00
20:30								20:30
21:00								21:00





Global Landscapes Forum

Sustainable landscapes
for a new climate and
development agenda –
A vision beyond 2015

6 - 7 December 2014
Lima, Peru

Forestry needs to look beyond forests.

Register now at landscapes.org



GlobalLandscapesForum



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Photo by Oliver Gass/CIFOR

Host country partner



Coordinating partners



Implementing Partners



THANK YOU!

To the U.S. Forest Service and the International Union of Forest Research Organizations for selecting Hanlon Creative to be your Communications Support partner for the 2014 IUFRO World Congress.

We greatly appreciate what you do for us, and it has been our pleasure to work with you!



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Section #1
WELCOME MESSAGES



UNITED STATES DEPARTMENT OF AGRICULTURE SECRETARY

On behalf of the United States Department of Agriculture, I welcome you to the XXIV International Union of Forestry Research Organizations World Congress.

This is the first time in over 40 years that the IUFRO World Congress has been held in the United States. We are proud to host this event and showcase our nation's accomplishments in forest research and conservation. We continue to work to preserve our nation's natural resources through restored forests, improved watersheds, and healthy private working lands. Our commitment to keep land, water, and air clean is not only a commitment to the citizens of the United States, but also to all people around the world.

From our founding, our nation has recognized the value of our abundant forest lands. Life does not exist without forests. Forests produce the oxygen critical for plants and animals to survive. Forests clean our air and water, create habitats for fish and wildlife, provide stunning scenery and recreation opportunities, and are a foundation for tourism and wood products industries that provide jobs and support communities.

The Department of Agriculture is not only the center for forest research in the United States; it is a strong supporter of university programs educating the next generation of forestry professionals and scientists. These students are among the world's future land management leaders. The Department also plays a leading role in conveying research results to private landowners. These roles—research, education, and outreach—are all important, especially as climate change and deforestation continue to take their toll on our environment.

The Obama administration recognizes the importance of creating opportunities, such as this Congress, for scientists and students from around the world to share their research findings and accomplishments with the global community, to learn from one another and promote global cooperation aimed at solving difficult natural resource restoration and conservation problems.

I am honored to welcome you to the United States and wish you a successful Congress.

Sincerely,

*Tom Vilsack
Secretary, United States Department of Agriculture*



UNITED STATES FOREST SERVICE CHIEF

On behalf of the U.S. Forest Service, I would like to welcome you to the XXIV International Union of Forestry Research Organizations (IUFRO) World Congress in Salt Lake City, Utah.

Forestry research has long been central to our work at the U.S. Forest Service. We have seven major research facilities and 500 scientists in 67 locations across the country. Our 81 experimental forests and ranges give us data on every major vegetation type in the United States, some of it going back more than a century. We work with partners for sustainable forest management across the nation.

One of our key partners is IUFRO; we have been a member for nearly a century. We rely on IUFRO's vast scientific network to learn about forestry research around the world, and to share our own findings. Through our partnership with IUFRO, we provide sound science to land managers and policymakers around the world.

The IUFRO Congress will address the role of research in sustaining forests and the people who depend on them. For our agency, this is a critical issue, and we know it is for many others around the world. You will have the opportunity to hear exceptional keynote speakers and attend nearly 200 sub-plenary and technical sessions and a trade exposition, with plenty of networking opportunities. You will also have the opportunity to see how land managers are using science in the field.

I was the forest supervisor for the Uinta-Wasatch-Cache National Forest when Salt Lake City hosted the 2002 Winter Olympic Games. The U.S. Forest Service worked closely with the local community to welcome the world, and it was a great success. I'm pleased that we have another opportunity to work with the world community, this time at the largest gathering of forest researchers and foresters ever held in the United States.

The U.S. Forest Service is delighted to host the IUFRO World Congress this year and to have so many of our employees share this experience with you. Welcome, and I know you will have a great time!

Sincerely,

*Tom Tidwell
Chief, United States Forest Service*



IUFRO PRESIDENT

Let me extend a most sincere welcome to all of you to the 24th IUFRO World Congress here in Salt Lake City. This is in fact the second time in the 122-year-long history of IUFRO that a World Congress has been held in the United States, after the 15th IUFRO World Congress in Gainesville, Florida, in 1971.

It makes me particularly proud to note that the first U.S. forest research institution became a member of IUFRO as early as 1906. This was, incidentally, only one year after the farsighted American forester Gifford Pinchot became the first chief of the United States Forest Service, the U.S. host of this conference. With his view of forest management as "the art of producing from the forest whatever it can yield for the service of man," he is certainly well in line with the motto of this Congress: "Sustaining Forests, Sustaining People: The Role of Research."

I am sure that one thing you will experience at this event is that for IUFRO, the role of research is more than that of discovering new aspects about forests and trees, providing hard facts and figures for policy and management decisions, and addressing burning issues of our world. It is also a means of interconnecting people across scientific disciplines and national boundaries, across age and gender lines, and languages and cultures, in order to exchange knowledge, share experiences, and learn from each other. In sum, IUFRO aims to interconnect forests, science, and people, as is well reflected in the future IUFRO Strategy that shall lead the organization up to the 25th IUFRO World Congress in Brazil in 2019.

In this spirit, let me wish you very successful and memorable days in Salt Lake City, full of opportunities and inspiration!

Sincerely,

*Niels Elers Koch
President, IUFRO*



NAUFRP PRESIDENT

On behalf of the National Association of University Forest Resources Programs (NAUFRP), I warmly welcome all those who have come from around the world to participate in the 2014 IUFRO World Congress at Salt Lake City, Utah.

NAUFRP is an association representing 80 of the United States' most prestigious universities that have programs devoted to forest resources at the undergraduate and graduate levels. Our shared purpose is to advance the health, productivity, and sustainability of our nation's forests through natural resource research, education, science, extension, and international activities.

Our member institutions have a unique responsibility for to develop programs that produce and foster future generations of forestry and natural resource professionals. These are researchers, teachers, land-management professionals, and leaders in the public and private sectors who will make decisions and shape policies that will determine the future of our world's forests. In this vein, our association is committed to cultural diversity and inclusion, to ensure that the future natural resource workforce and their perspectives reflect the diversity of peoples and values nationally and internationally.

Our faculty members and graduate students are vital components of the United States' forest research capacity. This IUFRO Congress is a once-in-a-lifetime opportunity for them to share their knowledge and experiences with their colleagues from around the world. And this is also a unique learning opportunity for our students – both from a scientific standpoint and a cultural one as they engage with fellow students from other institutions around the world.

The IUFRO Congress is an opportunity to build upon the “3 Rs” of higher education today – Rigor, Relevance, and Relationships. Rigor is a fundamental aspect of forest science, of course, and our work is highly relevant to sustaining forests and societies across the globe. One of the most valuable aspects of this international Congress, however, is relationships – we look forward to building them here in Salt Lake City, and to sustaining them through future engagement.

Sincerely,

*Steve Bullard
President, NAUFRP*



SALT LAKE CITY MAYOR

Greetings!

As mayor of Salt Lake City, I am honored to welcome you to the International Union of Forest Research Organizations (IUFRO) Convention in Salt Lake City from October 5-11, 2014.

IUFRO is an incredible asset to our nation as they focus on the conservation and sustainable management of one of our most valuable natural resources, our forests. IUFRO is a nonprofit, nongovernmental international network of forest scientists that promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic, and social aspects of forests and trees.

I hope you enjoy your time in Salt Lake City and I encourage you to take advantage of the many attractions our city has to offer. The Wasatch Mountains surrounding the valley provide a beautiful backdrop and unmatched outdoor recreational opportunities, and our vibrant downtown offers a thriving art and music scene, superb dining, and eclectic local shopping.

I know you will enjoy the experiences that await you. It is an honor to welcome you to the 2014 IUFRO Convention.



Sincerely,

*Ralph Becker
Mayor, Salt Lake City, Utah*



CONGRESS SCIENTIFIC COMMITTEE CHAIR

Let me extend a most sincere welcome to all of you to the 24th IUFRO World Congress here in Salt Lake City.

On behalf of the Congress Scientific Committee (CSC), it is my pleasure to welcome you to the XXIV World Congress of the International Union of Forest Research Organizations: Sustaining Forests, Sustaining People: The Role of Research. The Congress scientific program – developed by the CSC in collaboration with over 200 session organizers – includes more than 1300 oral presentations and nearly as many poster presentations in five plenary, 19 sub-plenary, and over 170 technical and poster sessions. These sessions are organized within seven Congress themes that encompass the full range of IUFRO's traditional and emerging scientific priorities for the benefit of forests and people worldwide: Forests for People, Forest Biodiversity and Ecosystem Services, Forests and Climate Change, Forest and Water Interactions, Forest Biomass and Bioenergy, Forests and Forest Products for a Greener Future, and Forest Health in a Changing World.

Regardless of your particular areas of interest and scientific expertise, we hope that our Congress will encourage you to explore and expand your interests in a broad array of contemporary topics in forest science, strengthen ties with colleagues and friends, and develop new relationships and collaborative research endeavors.

Sincerely,

*John A. Parrotta
Chair, Congress Scientific Committee*

CONGRESS ORGANIZING COMMITTEE CHAIR



On behalf of the Congress Organizing Committee, we are delighted to welcome all those who have come to Salt Lake City, Utah, to participate in the XXIV IUFRO World Congress. IUFRO Congresses are the premier opportunity for forest-focused people from around the world to share research results, learn what others are doing, and network with colleagues of similar interests.

Salt Lake City, named for the large hyper-saline lake nearby, is located in the center of the American West. At 4,330 feet (1,320 m), the Salt Lake City metropolitan area, with over one million people, rests on the eastern edge of the arid Great Basin. The majestic Wasatch Mountains to the east of the city soar to 11,000 feet (3,350 m). The forests of the 160-mile (260-km) long Wasatch have been vital to human habitation—stretching back thousands of years. These forests have provided clean water, food, fuel, forage, clothing, and building materials for millennia. In more recent years, they have also become highly valued for their precious metals, scenic beauty, outdoor recreation, and tourism.

From ancient times, the forests of Utah supported communities of diverse and resourceful peoples. The arrival of Euro-Americans starting in the mid-1800s brought many changes to the valley and the forests. By the early 1900s, unsustainable practices—overcutting and overgrazing by livestock—had led to severe problems. Soon the ability of the forests to provide for the needs of a rapidly growing population became strained. Early in the 20th century, things began to change for the better. National forests and grasslands were set aside and managers began to learn how to restore the land and the goods and services they could provide. Since then, the land has been carefully managed to provide sustainable flows of water, wood and forage, and all the other goods and services that people depend on for healthy economies and desirable communities.

Research has been the foundation for developing sustainable management practices for the natural resources here in Utah and throughout the United States. A cornerstone to the Forest Service research program over the past century has been a system of experimental forests and ranges, with 80 in current operation. The first of these outdoor laboratories was established in the United States in 1908, the first one in Utah in 1912. For over a century, a robust program of research has been conducted by the United States Forest Service and our partners at universities throughout the country. Five generations of researchers have built the scientific foundation for protecting, conserving, managing, and restoring forests in this country, and in years gone by they have shared their findings with delegates at previous IUFRO World Congresses held around the globe.

This week, it is our turn to host colleagues and students from across the Americas and from around the world. “Sustaining Forests, Sustaining People: The Role of Research.” Those words and their meaning have been our inspiration as we have planned and organized to welcome you to the XXIV IUFRO World Congress. We’re glad you’re here! Enjoy the Congress and Utah’s natural resources!

Sincerely,

*Richard W. Guldin
Chair, on behalf of the Congress Organizing Committee*

Section #2
GENERAL INFORMATION

Get around with ease!
The TRAX line runs to
and from the Salt Lake
City International Airport.
Board the Blue Line
train. The fare is
\$2.50 USD, one way.
Visit www.rideuta.com
for schedules.

Travel Information

Getting around Salt Lake City

TRAX, the urban surface rail system, has a “fare free” zone in the downtown urban area. You can get on and get off the TRAX trolleys without buying a ticket within this zone. Beyond the “fare free” zone, tickets are needed. TRAX serves several downtown shopping areas.

The TRAX line also runs to and from the Salt Lake City International Airport. Board the Blue Line train. The fare is \$2.50 USD, one way.

Visit www.rideuta.com for schedules.

You may request taxi service from your hotel. Costs vary depending on your destination. A trip to the airport costs around \$25 USD.

Dining

There are over 150 restaurants within a 6-block walk of the convention center. In the U.S., it is customary to tip 18% of the total cost of food and beverages for good service in restaurants. State and local taxes are added to hotel, retail, and restaurant purchases (Retail - 6.85%, Restaurant - 7.85%, Lodging - 12.60%). Grocery items are not taxed.

The drinking (alcoholic beverages) age in the U.S. is 21. If you order an alcoholic beverage at a restaurant or bar, your server may ask for proof of age. In Salt Lake City, you may not use tobacco products (cigarettes, cigars, pipes) inside any building.

Local Customs and Tips

Salt Lake City is in Mountain Daylight Time (MDT) or UTC/GMT -6 hours. The date system is written as month/day/year. Thus, 5 October 2014 becomes 10/5/14.

The U.S. currency is the U.S. dollar. Businesses will not accept foreign currencies, but they may accept foreign credit cards. Common credit cards such as Visa and MasterCard are widely accepted. You may exchange money at the airport or at a number of banks in the area. Some may charge a fee and others may not. You may also withdraw U.S. dollars at an ATM (automated teller machine). The machine may charge a transaction fee, and your home bank may charge an international transaction fee.

In the U.S., AC 110V is standard; adapters are usually required to run most non-U.S. electronics.

Visit www.visitsaltlake.com/facts/ for more information.

Hospitals

For emergencies, the nearest hospital to the Convention Center is:

University of Utah Hospital
50 Medical Drive
Salt Lake City, Utah 84132
(801) 581-2292

If you experience a life-threatening emergency – please dial 9-1-1 from any phone to reach an emergency operator. If your condition is not life threatening, please seek medical attention at an urgent care center. The nearest is:

Salt Lake InstaCare
389 South 900 East
Salt Lake City, Utah 84102
(385) 282-2400

Hotel Information

Crystal Inn Downtown

230 West 500 South
(801) 328-4466

Hilton Salt Lake City Center

255 South West Temple
(801) 328-2000

Hotel Monaco

15 West 200 South
(801) 595-0000

Little America Hotel

500 South Main Street
(801) 596-5700

Radisson Hotel Salt Lake City Downtown

215 West South Temple
(801) 531-7500

Red Lion Hotel Salt Lake Downtown

161 West 600 South
(801) 521-7373

Salt Lake City Marriott City Center

220 South State Street
(801) 961-8700

Salt Lake Marriott Downtown at City Creek

75 South West Temple
(801) 531-0800

Salt Lake Plaza Hotel at Temple Square

122 West South Temple
(801) 521-0130

Sheraton Salt Lake City

150 West 500 South
(801) 401-2000

Hotel Map & Quoted Rates



1. Salt Lake Marriott Downtown at City Creek \$172
2. Hilton Salt Lake City Center \$169
3. Radisson Hotel Salt Lake City Downtown \$169
4. The Salt Lake Plaza Hotel at Temple Square \$145
5. Hotel Monaco \$172
6. Marriott Salt Lake City Center \$162
7. Sheraton Salt Lake City Centre Hotel \$172
8. Little America—Tower \$159
Little America—Garden \$139
Little America—Courtside \$119
9. Red Lion Hotel Salt Lake Downtown \$149
10. Crystal Inn Downtown \$134

Discounted room rates are still being negotiated and are subject to change.

Onsite Services

Salt Palace Convention Center

The Salt Palace Convention Center has nearly 700,000 square feet of exhibit and meeting room space. The Salt Palace seeks to use the newest sustainability technology and environmental care practices and has one of the nation's largest rooftop solar array projects, featuring 6,006 panels. The building is Silver LEED certified by the US Green Building Council.

Registration Desk

Staff will be available to address all registration-related questions and needs.

Location: South Foyer
 Operational Hours: 11:00 – 19:00, 5 October
 07:00 – 18:00, 6 October
 07:00 – 19:00, 7 October
 08:00 – 18:00, 8 October
 08:00 – 17:00, 9 October
 08:00 – 17:00, 10 October
 08:00 – 12:00, 11 October

Tour Desk

Inquire about local and post-congress tours for purchase. Ask about your In-Congress tour and more. This will be open during registration hours.

Location: South Foyer Registration Desk
 Operational Hours: Daily, 08:00 – 16:00

Local Information Desk

What is there to do in Salt Lake? Ask local experts about where to eat, what to see, and where to go.

Location: Visitor's Center (near the East Entrance)
 Operational Hours: Daily, 08:00 – 16:00

Business Center

The Salt Palace operates a fee-based Business Center with the following services: copy and print, office supplies, wheelchair rental, small package shipping and receiving, storage, shipping, sundries, and a coat and luggage check.

Location: Upper Concourse
 Operational Hours: Daily, 08:00 – 17:00

Internet Lounge

Free wireless internet is available in the lounge, along with a small bank of computers for your use.

Location: Hall 1 – near the Poster Displays
 Operational Hours: Daily, 08:00 – 18:00

Wireless Internet

Free wireless internet is available for thirty-minute login segments courtesy of the Convention Center in the following locations: North, South, East, and West Foyers; the café seating area just outside the business center; and in the mezzanine area just outside rooms 257-260. Daily connections to high-speed wireless are available for purchase.

IUFRO Information Booth

Meet with IUFRO staff, browse and pick up publications, collect and purchase promotion products, get to know the Global Forest Information Service, and more.

Location: North Foyer
 Operational Hours: 08:00 – 18:00, 6-7 & 9-10 October
 Closed for field tours, 8 October
 08:00 – 13:00, 11 October

Speaker Ready Room

All speakers must pre-load their presentations into the content management system. Presenters can also use the speaker ready room to practice their presentations and seek advice on translations to English. Technical experts will be available to assist you with loading your presentation into the system.

Location: 254 B
 Operational Hours: 08:00 – 20:00, 5 October
 07:00 – 19:00, 6-7 October
 10:00 – 18:00, 8 October
 07:00 – 19:00, 9-10 October
 07:00 – 13:00, 11 October

Scientist Assistance Program Support Desk

Staff are available to help sponsored Scientist Assistance Program delegates with questions about debit cards, lodging, confirming return travel, and more.

Location: South Foyer Registration Area
 Operational Hours: 11:00 – 19:00, 5 October
 07:00 – 09:00 & 16:00-18:00, 6 October
 09:00 – 11:00, 7 October
 09:00 – 11:00, 10 October
 09:00 – 17:00, 11 October

Prayer Room

Available for use by people of all faiths.

Location: 260 A
 Operational Hours: Daily, 08:00 – 17:00

Wellness Room

Use for stretching, yoga, tai chi, meditation, resting, and more. Please do not use if feverish or ill.

Location: 260 B
 Operational Hours: Daily, 08:00 – 17:00

Volunteer Room

Staff will be available to respond to questions about volunteer assignments, sign student timesheets, discuss benefits, and more.

Location: 251 F

Operational Hours: Daily, core hours: 08:00 – 17:00
(and other times as volunteer shifts require)

Trade Exposition

Vendors from across the globe will showcase their products, services, education programs, and latest technologies. Stop by the trade exposition to learn more about these organizations, hear interesting presentations on the exhibit hall stage, visit the silent auctions, and more.

Location: Halls A & B

Operational Hours: 17:30 – 20:00, 8 October
10:00 – 17:30, 9-10 October
10:00 – 14:00, 11 October

Dining

Within the Convention Center, various food stand vendors will provide lunches for sale. Delegates are encouraged to also enjoy Salt Lake City's diverse restaurant selections. Please refer to your Visit Salt Lake Guide provided as part of your registration packet for dining options.

Congress Newsletter

A daily newsletter will be produced featuring Congress activities, local attractions, and more. The newsletter will be distributed each morning (except Wednesday) at 10:30. Limited hard copies will be available in the refreshment break areas, and the newsletter will be available for download via QR codes, the Congress app, and the Congress website.

Connecting with the Congress and Delegates

A message board will be available in the South Foyer Registration area. For social media and other electronic connections, please visit page 255.

Emergency

Professional emergency medical personnel are available at the Convention Center during all Congress operating hours. Should you witness or have a life-threatening medical emergency, please dial 9-1-1 on your mobile phone, then find Congress staff to alert onsite medical staff. For first aid and other non-life-threatening medical issues, please visit the Registration Desk and they can alert medical staff.

Disclaimer

The Program Book is considered accurate at the time of print. Note that some items may change due to unforeseen circumstances.



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Section #3
WHO'S WHO



International Union of Forest Research Organizations

Union Internationale des
Instituts de Recherches
Forestières

Internationaler
Verband Forstlicher
Forschungsanstalten

Unión Internacional
de Organizaciones de
Investigación Forestal

IUFRO

IUFRO is a global nonprofit and nongovernmental scientific organization with headquarters in Vienna, Austria. It was founded in 1892 with the aim to promote international cooperation in forest-related research.

IUFRO's members are research organizations, universities, individual scientists, decision-making authorities, and other stakeholders with an interest in and a focus on forests and trees.

IUFRO attains its objectives through networking activities such as the generation, exchange, and dissemination of scientific knowledge; the provision of access to relevant information; and the assistance to scientists and institutions to strengthen their research capacities.

The IUFRO network offers many entry points for voluntary expert cooperation: currently 9 Divisions with their Research Groups and Working Parties, 9 interdisciplinary Task Forces, Special Programmes such as IUFRO-SPDC, Special Projects such as IUFRO-WFSE, IUFRO-led Initiatives such as GFIS and GFEP, and regional Chapters.

Scientific, technical, policy and business matters are taken care of by various organs such as the Congress or general assembly, the International Council, the Board with its committees, the President and Vice-Presidents, the Executive Director and Secretariat, and all cooperating officeholders.

IUFRO in Figures

- 600+ member organizations in 100+ countries representing 15,000+ scientists
- 700+ voluntary officeholders
- 9 Divisions, 9 Task Forces, 4 Special Programs, Projects and IUFRO-led Initiatives
- 59 Research Groups and 172 Working Parties
- 70 meetings per year on average; IUFRO World Congress every 5 years

Divisions

IUFRO's field of scientific activity is spread over a number of Divisions, which support researchers in collaborative work. These Divisions provide an organizational structure with units called Research Groups and Working Parties. These units are coordinated by voluntary IUFRO officeholders and develop a series of activities such as organizing meetings, publishing newsletters, conducting study tours, exchanging knowledge and communicating findings, etc.

- Division 1 – Silviculture
- Division 2 – Physiology and Genetics
- Division 3 – Forest Operations Engineering and Management
- Division 4 – Forest Assessment, Modelling and Management
- Division 5 – Forest Products
- Division 6 – Social Aspects of Forests and Forestry
- Division 7 – Forest Health
- Division 8 – Forest Environment
- Division 9 – Forest Policy and Economics

Task Forces

For IUFRO to be successful, it is important to present effective and research-based responses from the science community to the changes in paradigms concerning forests, forest science, and policies affecting forests. In Task Forces, IUFRO scientists work together across disciplines. Their focus is on emerging key

issues that are of strong interests to policy makers and groups inside and outside the forest sector. Task Forces are established for a limited period only whereas Divisions are of a permanent character.

- International Forest Governance
- Resources for the Future
- Forest and Water Interactions
- Biodiversity and Ecosystem Services
- Forest Bioenergy
- Forests and Climate Change
- Forests for People
- Education in Forest Science
- Forests and Human Health

Special Programs, Projects and IUFRO-led Initiatives

- IUFRO-SPDC: Special Programme for Development of Capacities exists “to expand and foster forest research capacity in developing and economically disadvantaged countries,” which is done by providing training of scientists, collaborative research networking, and through the scientist assistance programme.
- IUFRO-WFSE: Special Project on World Forests, Society and Environment is a network that shares existing scientific knowledge and participates actively in forest-related policy processes. It promotes global cooperation in high quality research and wide participation in the international discussions and processes.
- GFIS: Global Forest Information Service brings the information that matters to key stakeholders in a single gateway - “www.gfis.net”.
- GFEP: Global Forest Expert Panels is an IUFRO-led initiative of the Collaborative Partnership on Forests (CPF) provides objective and independent scientific assessments of key issues in order to support more informed decision-making at the global level.

Becoming a Member

IUFRO is organized by nine permanent Divisions, sub-divided into Research Groups and Working Parties, as well as a number of Task Forces that are established for a limited period of time. Scientists from member organizations are welcome to join Divisions, Research Groups and Working Parties and can do so by contacting the coordinator of that group for more information. Application forms and more information about membership can be obtained from the IUFRO Secretariat and the IUFRO website. Benefits of membership are listed at <http://www.iufro.org/membership>.

ACKNOWLEDGEMENTS

Congress Organizing Committee

Our gratitude is shared for the countless hours and effort the subcommittee leaders and core teams have given to Congress preparation: James Allen, Vicki Berrett, Nadine Block, Steve Bullard, Cass Cairns, Nan Christianson, Toby Eberly, Rima Eid, Sam Foster, Susan Fox, George Garcia, Lisa Hansen, Michael Huck, Jim Johnson, Lilli Kaarakka, Stan Kitchen, Cindy Miner,

Nalini Nadkarni, Meredith Perkins, John Parrotta, Carlos Rodriguez-Franco, Terry Sharik, Patrick Shea, Bogdan Strimbu, Michael Sullivan, and Tim White.

To the staff at the IUFRO Headquarters: Alexander Buck, Brigitte Burger, Margareta Khorchidi, Michael Kleine, Renate Pruessler, Eva-Maria Schimpf, Astrid Toppel, Gerda Wolfrum, Sylvia Fiege, Hugo Pierre, Heimo Schaffer and the entire IUFRO Management Committee and Board.

To SAF and CIF/IFC: The entire SAF Council; the CIF/IFC National Board of Directors; the SAF/CIF 2014 Program Committee; the SAF staff; the CIF/IFC Executive and Staff; the International Quiz Night Committee; and in particular - Kelton Chapman, Jorge Esguerra, Matt Meade, Matt Menashes, Tat Smith, Carol Redelsheimer, and Christopher Whited.

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To our contractors and vendors: BAV, Convention Services of the Southwest, Hanlon Creative, SMG, and X-CD Technologies.

And finally, to the early partners who helped us envision a successful bid for the Congress and who provided support along the way: Ann Bartuska, Arthur Blazer, Robert Bonnie, Jimmy Reaves, Tom Tidwell, Region 4, and the Forest Service Research & Development executive leadership team; the Executive Committee members of the National Association of University Forest Resources Programs; the Society of American Foresters; colleagues at Visit Salt Lake, including Michael Mack, Chris Peterson, Mark White, and Gian Zini; and, IUFRO Past Presidents Robert Buckman and Jeffery Burley.

Congress Scientific Committee

This committee deserves more thanks than can be provided in this book, for their tireless efforts and many hours of dedication to ensure a diverse, robust, and high-quality scientific program: John Parrotta (Chair); Jens Peter Skovsgaard (Division 1); Yousry El-Kassaby (Division 2); Hans Heinimann (Division 3); Ronald McRoberts (Division 4); Andrew Wong (Division 5); Tuija Sievänen (Division 6); Tod Ramsfield (Division 7); Robert Jandl (Division 8); James Johnson (Division 9); Lisa Hansen (International Forestry Students Association); Richard Guldin (COC Chair); Jennifer Hayes (COC Project Manager); and Daryl Lederle (COC Specialist).

Key Partners

U.S. Department of Agriculture Forest Service

The U.S. Department of Agriculture Forest Service's mission is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. The U.S. Forest Service manages 77 million hectares of public national forests and grasslands and also provides technical and financial assistance to state and private forestry agencies, playing a direct or indirect role in the management of 80 percent of the nation's forest lands. The Research and Development arm of the U.S. Forest Service works at the forefront of science to improve the health and use of U.S. forests and grasslands and is the largest forestry research organization in the world.

The National Association of University Forest Resources Programs (NAUFRP)

The National Association of University Forest Resources Programs (NAUFRP), was formed in 1981 and represents 80 of our nation's most prestigious universities and their respective scientists, educators and extension specialists. NAUFRP's purpose is to advance the health, productivity, and sustainability of America's forests by providing university-based natural resource education, research, science, extension, and international programs. Our member institutions' programs develop future leaders, create intellectual capacity, secure financial investments, and advance cutting-edge technology to sustain forest resources. We connect educators, professional managers, scientists, conservation leaders, policy makers, landowners, and forest users to jointly address diverse ecological and human challenges. Our vision for America's forests is that there will be a national long-term investment to maintain, enhance, and protect the quantity and quality of our forests and the benefits and intrinsic values forests offer.

The Society of American Foresters (SAF)

The Society of American Foresters (SAF) is the national scientific and educational non-profit organization representing the forestry profession in the United States. The Society of American Foresters challenges landowners, decision makers and society at large to make choices about our forests based on professional knowledge, leading-edge thinking, and a century of practical experience. SAF seeks viable pathways forward, balancing diverse demands on our natural resources and setting the standard in forest management, bringing science, best practice, and the best people together to actively shape the future of the profession. With a focus on thriving forests, essential resources and a strong community, SAF unites 12,000 members, representing all U.S. states and from 60 different countries.

The Canadian Institute of Forestry/l'Institut forestier du Canada (CIF/IFC)

The Canadian Institute of Forestry/l'Institut forestier du Canada (CIF/IFC) is the national voice of forest practitioners. Formed in 1908, the Institute represents foresters, forest technologists and technicians, ecologists, biologists, geographers, educators, scientists, and many others with a professional interest in forestry. The Institute's mission is to provide national leadership in forestry, promote competence among forestry professionals, and foster public awareness of Canadian and international forestry issues.



Award Winners

Host Country Scientific Achievement Award Winners

The Host Country Scientific Achievement Award recognizes a distinguished career that has had exceptional impact. The three recipients of this prestigious award are regarded as the preeminent forest scientists of contemporary times in the United States of America. They have an unchallengeable international standing in the scientific community; evidenced by demonstrated impact of their scientific achievements in one or more sectors of forest or forest-related scientific disciplines; spanning social/cultural, economic, or ecological perspectives. Further, their work has set new research directions for others; led to development of new methods, techniques, or tools used by other researchers; and/or driven resource management and policy outcomes of national or global importance. The Congress Organizing Committee is proud to present the winners of the U.S. Scientific Achievement Awards.

Dr. Harold E. Burkhart



Dr. Harold E. Burkhart

Dr. Harold E. Burkhart has been a faculty member in Virginia Tech's Department of Forest Resources and Environmental Conservation since 1969 and now serves as a University Distinguished Professor. He earned his B.S. in Forestry from Oklahoma State University and his M.S. and Ph.D. in Forest Biometrics from the University of Georgia. Burkhart served as department head from 1995 to 2008 and was a Senior Research Fellow at the Forest Research Institute in Rotorua, New Zealand. A leading innovator in forest biometrics, Burkhart has published extensively on forest growth and yield prediction, and forest inventory and sampling. He is lead author of the advanced-level book "Modeling Forest Trees and Stands" and co-author of the textbook "Forest Measurements." His contributions to forestry research and education have earned him IUFRO's Scientific Achievement Award, the Society of American Foresters Barrington Moore Memorial Award, the Forest Landowners Association Forest Champion of the Year, the Virginia Academy of Science J. Shelton Horsley Research Award, the Virginia Tech Alumni Award for Research Excellence, and recognition as Virginia's Outstanding Scientist. A former editor of the journal *Forest Science*, Burkhart is a Fellow in the American Association for the Advancement of Science and the Society of American Foresters.

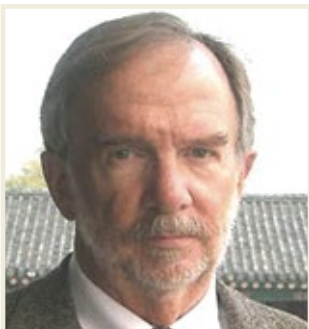
Dr. Stephen Hubbell



Dr. Stephen Hubbell

Dr. Stephen Hubbell is a Distinguished Professor of Ecology and Evolutionary Biology at UCLA, and an internationally renowned ecologist for his research on tropical rainforests and theoretical ecology. He is the co-founder and co-director of the Center for Tropical Forest Science — which manages a global network of large permanent tropical forest research plots and monitors natural populations of more than 6,000 tropical tree species — and is the founding chairman and a board member of the National Council for Science and the Environment, an organization with more than 10,000 members and more than 200 universities and professional societies. The NCSE's mission is to improve the scientific basis of environmental decision-making. Issues the organization addresses include biodiversity conservation and the extinction crisis. He earned his B.A. from Carleton College in 1963 and his Ph.D. from UC Berkeley in 1969. Hubbell, who joined UCLA's faculty in 2007, is a fellow of the American Academy of Arts and Sciences, a fellow of the American Association for the Advancement of Science, and a Guggenheim fellow. He is author of the unified neutral theory of biodiversity and biogeography, which explains the diversity and relative abundance of species in ecological communities.

Dr. Chadwick Dearing Oliver



Dr. Chadwick Dearing Oliver

Dr. Chadwick Dearing Oliver is the Pinchot Professor of Forestry and Environmental Studies and Director of the Global Institute of Sustainable Forestry at the Yale School of Forestry & Environmental Studies. His early work focused on the basic understanding of how forest stands develop and can be managed silviculturally. Much of this research was summarized in *Forest Stand Dynamics*, a seminal volume published in 1990 (updated in 1996) with co-author Dr. Bruce Larson. Dr. Oliver has continued this research, expanding it globally and focusing on how this understanding can help resolve scientific, technical, environmental, and management issues at the landscape and global levels. His Landscape Management System — a downloadable, computer-based tool for managing timber resources, wildlife habitat, carbon sequestration, and fire protection — has been used widely to analyze and visualize the effects of disturbances and management on landscapes. Dr. Oliver has authored more than 150 publications; including journal articles, book chapters, and symposia proceedings. He has served on Boards of Directors of foundations and companies, Editorial Boards, government advisory panels, and Ph.D. committees of students from many parts of the world. He received a B.S. from The University of the South and his M.F.S. and Ph.D. from Yale University. He has been on the faculties of the Harvard Forest, University of Washington, Middle East Technical University, and now, Yale University.

IUFRO Award Winners

IUFRO Scientific Achievement Award (SAA)



Sally Aitken, Canada



Jürgen Bausch, Germany

Benjamin Cashore, USA/
Canada

Richard Hamelin, Canada

Christopher Eric Harwood,
Australia

Shibu Jose, USA



Robert A. Kozak, Canada

Aino A. Mäkelä-Carter,
Finland

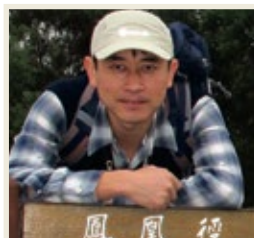
Jolanda Roux, South Africa

Giuseppe Scarascia
Mugnozza, Italy

IUFRO Outstanding Doctoral Research Award (ODRA)

Jan R. Bannister Hepp,
Germany

Susana Barreiro, Portugal



ShuaiFei Chen, China

César Pérez Cruzado,
Spain

Puneet Dwivedi, India

Sandra Rodríguez Piñeros,
Mexico

Eli Sagor, USA



Huei-Shing Sik, Malaysia



Zhun Mao, China

IUFRO Student Award for Excellence in Forest Sciences (ISA)



*Julius Adewopo,
USA/Nigeria*



*Tolulope Daramola,
USA/Nigeria*



Mika Yoshida, Japan



*Md. Mohitul Hossain,
Bangladesh*



*Sharif Ahmed Mukul,
Bangladesh*



*Ivana Zivojinovic (Guduric),
Serbia*



Wangari Maathai Award 2014

The Collaborative Partnership on Forests (CPF) will provide the Wangari Maathai award to one extraordinary individual for improving our forests and the lives of people who depend on them! This award honors and commemorates the impact of this extraordinary woman who championed forest issues around the world. The awardee will receive a cash prize of USD 20,000 along with international recognition of their outstanding contributions to preserve, restore, and sustainably manage forests; and to raise awareness of the key role forests play in supporting local communities, rural livelihoods, women and the environment. The Wangari Maathai Award, given for the first time in 2012, was created by CBD, CIFOR, FAO, GEF, ICRAF, ITTO, IUCN, IUFRO, UNCCD, UNDP, UNEP, UNFCCC, UNFF and World Bank; all members of the CPF. An international jury reviews nominations and considers such elements as empowering women and civil society, fostering social commitment, promoting networks, and improving the valuation of forests in society. The 2014 award will be given at the IUFRO World Congress. Learn who the award winner is on Monday Evening – please join us for the announcement!

Date: Monday 6 October
Time: 18:15 – 18:45
Location: Ballroom

METLA

From Metla to the Natural Resources Institute Finland (Luke)

As of January 1st, 2015, the Finnish Forest Research Institute (Metla) will be part of a new powerful research organization, Natural Resources Institute Finland (Luke).

Under the new entity Metla is joined by MTT Agrifood Research Finland, the Finnish Game and Fisheries Research Institute (RKTL) and the statistical services of the Information Centre of the Ministry of Agriculture and Forestry (Tike).

The merger is part of the reform of Finland's research and innovation system. The new institute will coordinate bioeconomy research nationally and look for increasingly integrated solutions to societal problems and challenges.

Natural Resources Institute Finland will be the second largest research institute in the country and one of the biggest clusters of bioeconomy expertise in Europe. In 2012, the total output of the three institutions was more than 1,700 person-years of research, and their combined turnover was approximately EUR 140 million.

We look forward to continuing our fruitful cooperation with all our old friends inside the IUFRO community, and welcome all new parties who are interested in cooperation with us in the field of natural resources research and expertise, all over the world.

More information:

Leena Paavilainen

Director General, professor

Phone: +358 29 532 2020

www.metla.fi

Natural Resources Institute Finland (Luke)



METLA



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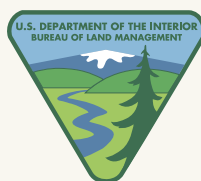


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Section #4
GENERAL CONGRESS PROGRAM

Week at a Glance



Program Schedule

Registration Hours
 Sun, 5 October: 11:00 – 19:00
 Mon, 6 October: 07:00 – 18:00
 Tue, 7 October: 07:00 – 19:00
 Wed, 8 October: 08:00 – 18:00
 Thu, 9 October: 08:00 – 17:00
 Fri, 10 October: 08:00 – 17:00
 Sat, 11 October: 08:00 – 12:00

TIME	SUNDAY OCT 5 th	MONDAY OCT 6 th	TUESDAY OCT 7 th	WEDNESDAY OCT 8 th	THURSDAY OCT 9 th	FRIDAY OCT 10 th	SATURDAY OCT 11 th	TIME
8:00								8:00
8:30								8:30
9:00		Opening Ceremony	Concurrent Technical Sessions		Joint Plenary Keynote Speakers (IUFRO/SAF/CIF) & Concurrent Technical Sessions	Concurrent Technical Sessions	Concurrent Technical Sessions	9:00
9:30								9:30
10:00								10:00
10:30		Refreshment Break	Refreshment Break		Refreshment Break	Refreshment Break	Refreshment Break	10:30
11:00		Keynote Plenary Session	Keynote Plenary Session		Joint Plenary Panel Session	Keynote Plenary Session	Keynote Plenary Session	11:00
11:30								11:30
12:00	Registration Open (11:00-19:00)	Posters Lunch Break, & IUFRO Business Sessions	Posters Lunch Break, Poster Viewing & IUFRO Business Sessions	In-Congress Tours (start and end times vary by tour)	Trade Exhibition & Posters Lunch Break & Side Events	Trade Exhibition & Posters Lunch Break, Poster Viewing & Side Events	Trade Exhibition & Posters Lunch Break	12:00
12:30								12:30
13:00								13:00
13:30		Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions		Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions	Concurrent Sub-Plenary Sessions	13:30
14:00								14:00
14:30	IUFRO Tree Planting Ceremony	Refreshment Break	Refreshment Break		Refreshment Break	Refreshment Break	Refreshment Break	14:30
15:00								15:00
15:30		Concurrent Technical Sessions	Concurrent Technical Sessions		Concurrent Technical Sessions	Concurrent Technical Sessions	Closing Ceremony	15:30
16:00								16:00
16:30								16:30
17:00								17:00
17:30								17:30
18:00	Making the Most of the Congress	Wangari Maathai Award Presentation		Trade Exhibition Exhibit Hall Grand Opening Reception				18:00
18:30								18:30
19:00		IUFRO Welcome Reception	IUFRO Business Sessions					19:00
19:30								19:30
20:00				International Student Quiz Bowl	Side Events	Side Events & IUFRO Divisional Meetings	Farewell Gala Dinner	20:00
20:30								20:30
21:00								21:00

IUFRO Special Meetings and Business Sessions

International Council Meetings

Attendance at this meeting is by invitation only.

Location: Hilton Hotel
 Dates: Tuesday, 7 October & Friday, 10 October from 15:30 – 18:00 (reception to follow)

President's Discussion

The IUFRO President's Discussion is open to all registered delegates.

Location: Hall E
 Dates: Tuesday, 7 October – 08:30 – 10:30
 Description: A panel of distinguished stakeholders representing different perspectives will engage in a dialogue with the participants about what they see as emerging issues in forest policy and practice. This will give the opportunity to present to a global audience of scientists the topics that should be prominently featured in the scientific agenda in the years to come. The focus will be on the perspectives of nature conservation, recreation, business and industry, development cooperation, and youth.

Moderator: Niels Elers Koch (IUFRO President)
 Keynote speaker: Robert Bonnie (U.S. Department of Agriculture, USA)
 Panel discussion: Yemi Adeyeye (International Forestry Students Association, Nigeria), Tuukka Castrén (World Bank, USA), Craig Hanson (Global Director Food, Forests & Water, World Resources Institute, USA), and Emmanuel Ze Meka (International Tropical Timber Organization, Japan). Other panelists to be confirmed.

IUFRO Business Sessions

These sessions are intended for administrative and business issues related to IUFRO units, and not for the discussion of substantive research issues. Research Group and Working Party meetings will be held on Monday and Tuesday, and Divisional meetings will be held on Friday.

Monday, 6 October - Business Sessions

Time	Room	IUFRO Unit #	Name of IUFRO Unit	Contact Person
12:00-12:40	150D	1.01.11	Ecology and Silviculture of Ash and Maple	Jens Peter Skovsgaard
	150C	4.02.02	Multipurpose Inventories	R.K. Kohli
	151A	5.04.13	Industrial Engineering, Operations Analysis and Logistics	Henry Quesada
	150A	5.12.00	Sustainable Utilization of Forest Products	Robert Deal
	150E	7.01.00	Impacts of Air Pollution and Climate Change on Forest Ecosystems	Andrzej Bytnerowicz
	150G	9.00.00	Forest Policy and Economics	Daniela Kleinschmit
	150F	9.01.00	Information and Communication	James Johnson
12:50-13:30	151B	1.02.04	Sustainable Management and Genetic Resources in Meliaceae	Sheila Ward (Dep.)
	151A	5.01.00	Wood Quality	Pekka Saranpää
	151C	5.05.00	Composite and Reconstituted Products	Salim Hiziroglu
	151D	8.01.02	Landscape Ecology	Sandra Luque
	151F	8.02.08	African Wildlife Conservation and Management	Chabi Djagoun
	151E	9.01.02	Communication and Public Relations	Cynthia Miner
	151G	9.03.04 & 9.03.05	Traditional Forest Knowledge in Temperate and Boreal Regions & in Tropical and Subtropical Regions	Yeo-Chang Youn (Dep.) & Jinlong Liu



Tuesday, 7 October - Business Sessions

Time	Room	IUFRO Unit #	Name of IUFRO Unit	Contact Person
12:00-13:30	150A	6.01 & 6.02 & 6.03 & 6.04 & 6.10	Forest Recreation, Landscape and Nature Conservation & Landscape Planning and Management & Nature-based Tourism & Nature Conservation and Protected Areas & Rural Development	Frank Søndergaard Jensen
12:00-12:40	150F	1.03.00	Short-Rotation Forestry	Sanjeev K. Chauhan
	150G	1.04.00	Agroforestry	August Temu
	151C	2.04.01	Population, Ecological and Conservation Genetics	Om P. Rajora
	151A	3.04.00	Forest Operations Management	Woodam Chung
	151F	4.03.03	Information Management and Information Technologies	Harald Vacik (Dep.)
	151G	5.03.00	Wood Protection	Andrew Wong (Dep.)
	150D	5.07.00	Biorefinery	Dominique Lachenal (Dep.)
	151B	5.10.01	Wood Culture	Howard Rosen
	151E	6.08 & 6.09	Gender and Forestry & Improving Education and Further Education in Forestry	Gun Lidestav & Siegr. Lewark
	150C	8.02.04	Ecology of Alien Invasives	R.K. Kohli
	150E	9.01.03	Extension and Knowledge Exchange	Jurij Begus
	151D	9.05.00	Forest Policy and Governance	Margaret A. Shannon
	150B	TF Biodiversity	Biodiversity and Ecosystem Services	E. Brockerhoff
12:50-13:30	150D	1.01.06	Ecology and Silviculture of Oak	Kurt W. Gottschalk
	151C	1.01.12	Silviculture and Ungulates	Thomas Rooney
	150C	1.06.00	Restoration of Degraded Sites	John Stanturf
	150F	5.02.00	Physiomechanical Properties of Wood and Wood-based Materials	Xiping Wang
	151A	5.06.00	Properties and Utilization of Plantation Wood	Roger Meder
	150B	5.10.00	Forest Products Marketing and Business Management	Eric Hansen
	150E	6.07.00	Urban Forestry	David Nowak
	150G	7.03.00	Entomology	Andrew Liebhold
	151B	9.01.04	Latin American and Caribbean Information Systems Network	Santiago Barros
	151D	GFEP	Global Forest Expert Panel: Forests and Food Security	Bhaskar Vira

Tuesday, 7 October - Business Sessions

Time	Room	IUFRO Unit #	Name of IUFRO Unit	Contact Person
19:00-19:40	150D	1.01.00	Temperate and Boreal Silviculture	Palle Madsen
	151D	1.01.07	Ecology and Silviculture of Beech	Palle Madsen (Dep.)
	150B	1.02.05	Silviculture and Management in Arid and Semi-Arid Regions	Santiago Barros
	150E	3.03.00	Forest Ergonomics	Yozo Yamada
	151A	4.01.05	Process-based Models for Predicting Forest Growth and Timber Quality	Oscar Garcia
	150C	5.11.00	Non-wood Forest Products	T. Hammett/J. Chamberlain
	150F	7.01.04	Impacts of Air Pollution and Climate Change on Forest Ecosystems – Genetic Aspects	Om P. Rajora
	150G	7.02.00	Pathology	Jolanda Roux
	151B	9.03.00	Forest History and Traditional Knowledge	Mauro Agnoletti
	151F	9.04.03	Ecological Economics	Yeo-Chang Youn
	151C	9.05.08	Forest and Natural Resources Policy and Governance in Latin America and the Caribbean	Ronnie de Camino Velozo
	150A	9.07.00	Forest Sector Analysis	Birger Solberg
	151E	GFEP	Global Forest Expert Panel: Forests and Food Security	Bhaskar Vira

Friday, 10 October - Business Sessions

Time	Room	IUFRO Unit #	Name of IUFRO Unit	Contact Person
19:00-21:30	355F	Division 1	Silviculture	Bjorn Hanell
	355E	Division 2	Physiology and Genetics	Yousry El-Kassaby
	355D	Division 3	Forest Operations Engineering and Management	Hans R. Heinimann
	355C	Division 4	Forest Assessment, Modelling and Management	Margarida Tomé
	355B	Division 5	Forest Products	Andrew Wong
	355A	Division 6	Social Aspects of Forests and Forestry	Tuija Sievaenen
	255E	Division 7	Forest Health	Eckehard Brockerhoff
	255D	Division 8	Forest Environment	Jean-Michel Carnus
	255A	Division 9	Forest Policy and Economics	Daniela Kleinschmit

Official and Social Events

Tree Planting Ceremony

A tree planting ceremony will be held at the International Peace Garden as part of the IUFRO Congress tradition. All delegates are welcome to attend.

Location: International Peace Gardens is located at Jordan Park, 1000 South 900 West, Salt Lake City
Date: Sunday, 5 October – 14:00-15:30

Congress Introductory Session – Making the Most of the Congress

If this is your first IUFRO World Congress, you should consider attending this session. Organized by the IUFRO-SPDC, this session gives delegates an overview of what to expect and how to make the most of your experience.

Location: 155 A-C
Date: Sunday, 5 October – 17:30-18:30

Opening Ceremony

Congress delegates are invited to attend this ceremony where they will be treated to cultural performances and to opening remarks from invited dignitaries.

Location: Ballroom
Date: Monday, 6 October – 08:30-10:30

Welcome Reception

Please join us to celebrate the beginning of the 2014 IUFRO World Congress and to say hello to old and new friends. This informal reception will showcase American cuisine and music.

Location: Hall E
Date: Monday, 6 October – 18:30-20:30

Exposition Hall Opening Reception

This Trade Exposition Hall Opening Reception welcomes all IUFRO delegates and the Society of American Foresters and Canadian Institute of Forestry participants. This informal reception is an excellent opportunity to peruse the vendors of the trade exposition and to enjoy unique American food, drink, and music. The reception will take place following the day's In-Congress tour.

Location: Halls A, B & C
Date: Wednesday, 8 October – 17:30-20:00

International Student Quiz Bowl

Come watch and cheer on student teams from across the globe test and demonstrate their forestry knowledge.

Location: Convention Center 155-355
Date: Wednesday, 8 October – 19:00-21:00

Alumni Receptions

Various universities are organizing receptions. Please check with your alma mater to see if they have one planned. These are not affiliated with the Congress.

Location: Marriott City Creek and Hilton Hotels
Date: Thursday, 9 October – 19:00-21:00

Closing Ceremony

All delegates are invited to attend this official closing ceremony where participants will welcome the new IUFRO Board members and learn who will be the host of the 2019 World Congress!

Location: Ballroom
Date: Saturday, 11 October – 15:30-17:30

Farewell Gala and Dinner

Enjoy a uniquely western farewell gala and dinner. Delegates from the IUFRO World Congress and the Society of American Foresters/Canadian Institute of Forestry Convention will gather together to experience the music, food, and traditions of the American west. A wide range of food, drink, and entertainment will be provided. Consider dressing in traditional costume as we bid farewell to our new and old friends.

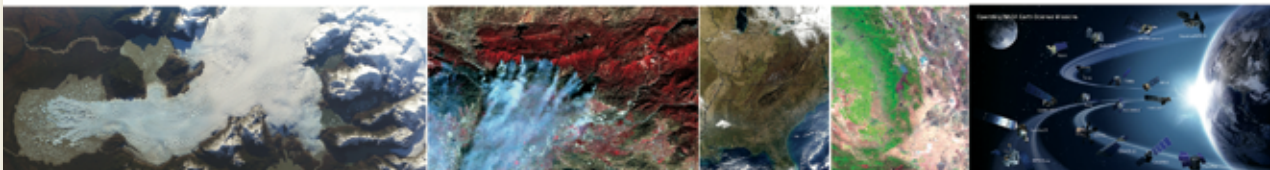
Location: Hall E
Date: Saturday, 11 October – 18:00-20:30



The NASA Earth Science Division focuses on research and applications uses of satellite and airborne measurements for long-term global observations of the land surface, biosphere, solid Earth, atmosphere, and oceans. NASA conducts and sponsors research, collects new observations, develops technologies and extends science and technology education to learners of all ages. NASA works closely with our global partners in government, industry, and the public to enhance economic security, and environmental stewardship, benefiting society in many tangible ways. The Applied Sciences Program links the research components with partner agencies to foster application and adaptation of NASA-derived capabilities into operational utility.

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Side Events Program

A diverse set of side events are occurring on the sidelines of the official program. The schedule for these events is below and all are open to registered delegates.

Monday, 6 October - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
18:15-18:45	Ballroom	Wangari Maathai Award Presentation	Collaborative Partnership on Forests	Mita Sen	Presentation of the prestigious Wangari Maathai Award to honour an individual for their outstanding achievements for forests.

Wednesday, 8 October - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
09:00-11:00	Hall E	Metla will become part of the Natural Resources Institute Finland	Finnish Forest Research Institute (Metla)	Erikki Kauhanen	In January 1st, 2015, the Finnish Forest Research Institute (Metla) with the Finnish Game and Fisheries Research (RKTL) and MTT Agrifood Research Finland plus the statistical services of the Information Centre of the Finnish Ministry of Agriculture will merge to form the Natural Resources Institute Finland. The new institute is presented to Metla's international partners.
13:00-17:00	TBD	Joint meeting of U.S. Extension Foresters and IUFRO Extension and Knowledge Exchange Working Party	USDA National Institute of Food and Agriculture	Eric Norland	The U.S. Extension Foresters welcome extensionists who are attending the IUFRO World Congress to a forum to meet and discuss opportunities and challenges in translating forest science into action by landowners and natural resource professionals.

Thursday, 9 October - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
12:00-13:00	150 A	Innovative Developments in Bamboo for Structural Utilization	World Bamboo Organization and Amphibia Group	Susanne Lucas and Hector Archila	The side event will showcase the latest advances in engineered bamboo products development and life cycle assessment tools applied to bamboo products. Experts from industry, academia and the World Bamboo Organization will present these themes and discuss their importance on the future of bamboo as a sustainable alternative to traditional timber.
	150 B	Quantifying and Certifying Ecosystem Services	The Gold Standard	Moriz Vohrer	Carbon, water, biodiversity and erosion protection are all services that forests provide - and are under ongoing pressure. Through quantification and certification their value becomes visible and can be protected more effectively. The interest in these practices increases. This side event explores some of the best practice work done so far.
	Exhibit Hall Stage	Marcus Wallenberg Prize Informational Session	Marcus Wallenberg Prize Committee Sweden	Kaj Rosen and Jeff Burley	The Marcus Wallenberg Prize is awarded annually for a unique research breakthrough that has had or is likely to have a major impact on the forestry and forest products industries. The Prize is 2 million Swedish Crowns and is awarded to one or a small group of scientists. It is an international Prize which beside recognition of the laureate(s) has the intention to stimulate young scientists to engage in forest sector research. The Prize is awarded by the King of Sweden at a glowing ceremony in Stockholm that is followed by a seminar on the topic of the winner. Details of procedures and past winners are shown at www.mwp.org .
	250 A	Tropical forest, connecting the world through sustainability	International Tropical Timber Organization	Takeshi Goto and Ramon Carrillo	Interactive panel discussions highlighting the contribution of forest to sustainability of human kind and its interconnections at global level, including provision of goods and services, mitigation and adaptation to climate change, local livelihoods and its contribution to national economies, interconnected timber markets, and trans boundary conservation. A special section will be devoted for the ITTO-IUFRO-FORNESSA project in West Africa.
19:00-21:00	150 B	Forests and water – international momentum and action	Food and Agriculture Organization of the United Nations; IUFRO, ICRAF and the Weyerhaeuser Company	Thomas Hofer	Numerous meetings on forests and water have taken place during recent years, the recommendations of which have been synthesized in a FAO publication entitled 'Forests and Water: International Momentum and Action'. Based on this publication, an international expert group met in Kunming, China, from 24 to 26 March 2014 and developed a concrete 5 year forests and water agenda. During the side event the agenda will be officially presented and further fleshed out from the scientific perspective. Also the building blocks for a forest and water event scheduled to take place at the World Forestry Congress in 2015 in Durban will be finalized.
	150 D	Practical Issues in Implementing Uncertainty Analysis	Quantifying Uncertainty in Ecosystem Studies (QUEST), a Research Coordination Network	Ruth Yanai, David Paré, and George Gertner	We will discuss the decisions required in implementing uncertainty analyses and the compromises required when dealing with real-world applications. Do we need a true value to report error? What error term is relevant (uncertainty in an individual prediction, uncertainty in a mean)? What should we do when the magnitude of some sources of uncertainty is unknown?

Thursday, 9 October (Cont.) - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
19:00-21:00	150 E	Workshop on Trade and Forest Health	Food and Agriculture Organization of the United Nations	Shiroma Sathyapala	A workshop to introduce the e-learning course "Trade in forest commodities and the role of phytosanitary measures and provide the examples of its implementation in different regions in the world. The course contains five modules covering everything from the possible threats to forest health associated with international trade to what information is needed to safely import/export forest products. The e-learning course was based on the "Guide to implementation of phytosanitary standards in forestry" developed by FAO and its partners in collaboration with the with the International Plant Protection Convention (IPPC). In addition there will be a presentation on abiotic factors affecting the forest Health and possible remedial actions.
	250 A	ITTO and CITES collaboration to sustain tropical tree species	International Tropical Timber Organization	Steve Johnson	The International Tropical Timber Organization (ITTO) and the Convention on International Trade in Endangered Species (CITES) have been collaborating for nearly a decade to assist countries to improve management of tropical tree species listed in the CITES Appendices. This event will review progress achieved by this collaborative program throughout the tropics.
	250 B	Enabling Productive Uses of Forests that Reduce Poverty, Create Jobs and Build Resilience	PROFOR - Program on Forests	Diji Chandrasekharan Behr and Tuukka Castren	Productive uses of forests' can contribution to growing local, national, and regional economies. We need to seize opportunities for expanding the contribution of productive uses of forests to green, inclusive and resilient growth. Join a panel of experts to learn more these opportunities and potential contribution of forests, and to discuss how we can collectively engage in this area of work.
	250 C	Celebrating 20 years of FSC Impacts on Forests and People	Forest Stewardship Council	Anakarina Pérez Oropeza	FSC is celebrating 20 years of continuous efforts to find solutions that benefit people and forests worldwide. In this session FSC and keynote speakers will share experiences and findings highlighting FSC's impacts globally over these two decades.
	250 D	Bioeconomy and the forest sector – an overview	Nordic Forest Research (SNS) and Scandinavian Journal of Forest Research	Mats Hannerz	The seminar gives an overview of the bioeconomy concept by reviews of social challenges, policy issues, biological constraints and options, and industrial innovations. The qualified speakers have summarized their fields in a special journal issue, launched at the seminar.
	250 E	Wood Culture Technical Session	International Wood Culture Society	Howard Rosen	This special evening session will continue with the theme of Session 5 Wood and forest culture: merging the past with the present. The session will include several technical talks, a general talk about World Wood Day programs around the world, as well as have artisans doing craft demonstrations.
	250 F	Towards strengthened international science collaboration on planted forests – Main research questions from a stakeholder perspective	European Forest Institute	Christophe Orazio and Stephanie Hayes	The meeting will summarize the outcomes of the 3rd International Congress on Planted Forests 2013 (ICPF), explore the views of the private forestry sector, and discuss options for further collaboration with IUFRO.

Friday, 10 October - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
12:00-13:00	150 A	Shelterbelts' roles, functions, and options to combat climate change	University of Agricultural sciences, Dharwad, Karnataka, India	Shivanna Honnurappa	The shelterbelts are essentially required in the arid and semiarid regions of the world. They also required in both tropical and temperate conditions to normalise the environmental impacts on crops, microclimate change, crop growth and conservation of water, soil, biomes, birds, microbes also they shelter for birds, wild animals, butterflies, honey bees and other creatures in and around them. Hence it is an event to encourage the scientific mass to motivate the issues at farmers level may be in community based or as an official programme as done in Canada. Globally promotional events are essentially required. So .....the proposal.
	150 B	Gender Lens Photo Book Launch	CGIAR	Purabi Bose	International Center for Tropical Agriculture (CIAT) is one of the 15 CGIAR centers with headquarter office in Colombia. The photobook launch as part of IUFRO's side event will be part of CIAT's Forests, Trees and Agroforestry integrating Gender (FTA Gender). CIAT's FTA is taking an initiative to do science with a difference - publishing a photo book as an output of the International Photo Competition 2014 on 'Forest-Agriculture Interface through Gender Lens'. The photobook will be key output of our photo competition with 100 photos that best showcase (success and failure) of forest-agriculture interface with gender as a cross-cutting theme across the globe. For details kindly check this blog http://dapa.ciat.cgiar.org/international-photo-competition_purabi-bose/
	150 C	Web services and workflows in biodiversity and ecosystem science: A technology showcase	BioVeL	Hannu Saarenmaa	Shared data and models on Internet can be combined with automated workflows to perform complex computational tasks. In this showcase the BioVeL project demonstrates use of workflow technology in ecological niche modelling of forest pests, carbon modelling with the Biome-BGC model, and accessing and sharing data through GBIF and GEOSS.
	250 B	FAO Open Foris Initiative: free tools for forest monitoring	Food and Agriculture Organization of the United Nations	Danilo Mollicone	Open Foris is an FAO-led initiative to develop and share tools and methods for forest monitoring. These tools are already being used to support more than 20 (or is it 40 already?) countries in gathering, analyzing and disseminating reliable information on the state of forest resources. Emphasis is placed on building sustainable capacity through free sharing of all tools and methods, documentation and source-code, thus promoting self-sufficiency, transparency and vendor independence. Open Foris tools are available for everyone without restrictions. Therefore the initiative supports also educational and research institutions as they can apply the tools and even develop them further. Practical examples of Open Foris applications will be presented.
	250 C	Forest Landscape Restoration as a strategy for mitigating and adapting to climate change	IUFRO and World Resources Institute	Michael Kleine	Forest landscape restoration (FLR) aims to improve both ecological integrity and human wellbeing. To this end, a group of IUFRO scientists has developed a framework to demonstrate how FLR can contribute to climate change mitigation and adaptation. This communication tool should help decision-makers to build resilient landscapes and learn how climate objectives can be addressed through FLR. The results presented in this side event are based on work of a collaborative project between the World Resources Institute and IUFRO funded by the German Ministry of Environment.

Friday, 10 October - Side Events

Time	Room	Title	Organizing Institution	Event Lead	Description of Event
19:00-21:00	250 A	Implementing a Global Plan of Action for Forest Genetic Resources	Biodiversity International	Judy Loo	Short presentations: Highlights of the first State of the World's Forest Genetic Resources (FGR) report; Global Plan of Action (GPA) and its implementation; linking to international agendas; key issues in conservation and sustainable use of FGR. Presentations will be followed by discussion on implementing the GPA.
	250 B	IBFRA: International Boreal Forest Research	International Boreal Forest Research Association	Rasmus Astrup	This is a side event arranged by IBFRA in order to foster increased international collaborative research on boreal forest. The side event will combine 3 short keynotes on the research frontier in boreal forest research; introduce new IBFRA research and network activities combined with discussions related to the future needs for boreal forest research.
	250 C	Understanding the resilience of disturbed forests in the tropics	TmFO and its partners	Plinio Sist and Robert Nasi	TmFO aims to assess the impact of logging on forest dynamics, carbon storage and tree species composition at regional level in the Amazon basin, Congo basin and South East Asia. This side event will present this new forest observatory as well as the first results of the research and will give the opportunity to the participants to share ideas and experience of this issue.
	250 D	Developments and the way forward: Establishment of the International Union of Agroforestry	World Agroforestry Centre (ICRAF)	Margaret Kroma	The establishment of an International Union of Agroforestry (IUAF) was proposed and approved in Delhi, India in February 2014 at the World Agroforestry Congress. To formally establish the IUAF, discussions around finalization of a charter and development of requisite institutional infrastructure and resource mobilization mechanisms are necessary. The purpose of the meeting is to engage professionals in the wider community of interest in agroforestry for constructive input of constructive ideas and actions towards these ends.



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IN-CONGRESS TOURS

Tour #	Title	Area
IC-01-A	Alpine Hydrology & Snow Science	Little Cottonwood Canyon
IC-01-B	Alpine Hydrology & Snow Science	Little Cottonwood Canyon
IC-03	Nature-Based Tourism	Little Cottonwood Canyon
IC-04	Forests to Faucets - Watershed Management	Big Cottonwood Canyon
IC-05	Urban Forest Research and Management	Big Cottonwood Canyon
IC-06	Tourism and Recreation Management - morning	Big Cottonwood Canyon
IC-06	Tourism and Recreation Management - afternoon	Big Cottonwood Canyon
IC-07	Urban Forest Watershed Management	Big Cottonwood Canyon
IC-08	Great Salt Lake Hydrology and International Bird Migration	Antelope Island State Park
IC-09	Salt Lake City Urban Forests	Salt Lake City
IC-10	Walter Mueggler Research Natural Area Hike	Big Cottonwood Canyon
IC-11	A Changing Scene: Forest Health in the High Uinta Mountains	Mirror Lake Scenic Byway
IC-12	Forest Operations and Recreation Management	Mirror Lake Scenic Byway
IC-13	Wildland Fire Management and Post-Fire Restoration	American Fork Canyon
IC-14	Shrublands Research and Restoration	Provo and American Fork Canyon
IC-15	Wasatch Plateau 1 - managing for multiple uses	Spanish Fork Canyon
IC-16	Wasatch Plateau 2 - managing for multiple uses	Spanish Fork Canyon
IC-17	Aspen Reproductive Ecology and Genetics	Fish Lake National Forest & PandoClone
IC-18	Pinyon Juniper Ecology and Management	Beaver/ Southern Utah
IC-19	Arches National Park (not scientific)	Moab
IC-20	Capitol Reef National Park (not scientific)	Capitol Reef
IC-21	Pinion Juniper Treatment, Mobile Pyrolysis, and the Great Salt Lake Marina	South of Salt Lake City
IC-22	Aspen in Logan Canyon: Historical Impacts and Modern Indicators	Logan Canyon
IC-23	Forest Assessment, Inventory and Monitoring	Logan Canyon/ Ogden Valley
IC-25	Forest Health in Northern Utah	Logan Canyon/ Bear Lake
IC-26	Forest Operations and Management in Northern Utah	Logan Canyon/ Bear Lake
IC-27	American West Heritage Center (not scientific)	Logan

Stops	Depart	Return	Tour Lead(s)
Snowbird Ski Area; Alta Ski Area	8:00	14:30	Kelly Elder
Snowbird Ski Area; Alta Ski Area	8:00	14:30	Mike Jenkins
Snowbird Ski Area; Alta Ski Area	9:30	17:30	Dan Williams
Silver Lake Visitor's Center; Brighton Ski Area; Big Cottonwood Water Treatment Plant	8:30	14:00	Tracie Kirkham
Spruces Campground; Brighton Ski Area	9:15	16:00	Sarah Hines
Silver Lake Visitor's Center; Brighton Ski Area	8:00	12:30	Steve Burr & Cathy Kahlow
Silver Lake Visitor's Center; Brighton Ski Area	13:00	17:15	Steve Burr & Cathy Kahlow
Spruces Campground; Silver Lake Visitor's Center	13:00	17:30	Charlie Condrat
Antelope Island; Garr Ranch	8:45	15:00	Alex Hoppus
Redwood Natural Area; Red Butte Gardens; University of Utah	8:30	16:00	Meridith Perkins & Mike Kuhns
Spruces Campground; Mueggler-Butler Fork RNA, Mt. Olympus Wilderness	7:45	15:00	Wayne Padgett & Steve Shelly
Pine Valley Campground; Camp Rogers; Washington Lake Campground	7:45	17:30	Liz Hebertson
Blizzard Lumber; Mirror Lake Overlook	9:00	16:45	Nate Anderson
Northern Interagency Fire Center; Quail Fire - City of Alpine; Mutual Dell; Tibble Fork Campground; Cascade Springs	8:30	16:00	George Garcia
Forest Service Shrub Sciences Laboratory; Brigham-Young University Arboretum; Mutual Dell Campground	8:00	15:00	Susan Meyer
Schofield State Park; Winter's Quarters Cemetery; Old Folks Flat Campground	7:30	17:00	Stan Kitchen
Price History Museum; Old Folks Flat Campground; Huntington Reservoir	7:30	19:00	Rosann Fillmore & Charmaine Thompson
Salina Overlook; PandoClone; Fish Creek Campground	6:00	17:30	Karen Mock
Freemont Indian State Park; Cove Fort Pioneer Settlement; Beaver treatment zone; Beaver equipment demonstration	7:00	19:30	Doug Page
Arches National Park; Moab	6:15	19:00	N/A
Capitol Reef National Park	6:30	18:30	N/A
Great Salt Lake Marina; Stockton Treatment Area; Clover Springs Campground; Pony Express Stop	7:15	16:30	Darren McAvoy
Forest Service Logan Ranger District Office; Tony Grove; Limber Pine Trail	8:15	18:30	Paul Rogers
Tony Grove; Beaver Ski Area; Bear Lake Overlook; Randolph; Monte Cristo Overlook	8:15/9:00	19:15/20:00	John Shaw
Tony Grove Lake; Beaver Ski Area; Bear Lake Overlook; Immigration Pass; Dayton Plantation	6:30	19:15	Barbara Bentz
Logan Canyon; Bear Lake Overlook; Treatment Areas; Jensen Lumber Company	6:30	16:30	Mike Battaglia
American West Heritage Center	10:00	18:30	N/A

Post-Congress Tours are available on a first-come, first serve basis. Visit **westernleisure.com** and reserve your spot today!

Post-Congress Tours

We have partnered with Western Leisure to bring delegates an outstanding set of post-congress tours. These tours have limited capacity and are available on a first-come, first-serve basis directly through Western Leisure. Any and all questions about these tours should be directed to Keith Griffall, Western Leisure CEO, at keith@westernleisure.com, visit the tour website at www.westernleisure.com/store/iufro2014/, or stop by the Tours desk in the registration area for more information.

Yellowstone, Tetons & Jackson Hole

3 Days, 2 Nights – October 12-14

National Parks Spectacular

4 Days, 3 nights – October 12-15

International Wood Culture Society

3 days, 2 nights – October 12-14

Accompanying Persons Program and Daily Tours

An exciting Accompanying Persons Program is offered on Tuesday, Thursday, and Friday of the Congress. Registered Accompanying Persons may select one (1) tour from the following list, free of charge, as part of the Accompanying Persons registration fee. They may also purchase any other tours they wish to attend. The In-Congress tour on Wednesday, 8 October is also included in the Accompanying Persons registration fee. Additional tours may also be purchased onsite at the Tour Help Desk or during the registration process.

Full Congress delegates may also choose to purchase these tours. Please visit the Tour Help Desk to purchase.

AP-01: Park City and Utah Olympic Park

Date: 7 October, 2014 – 13:00-17:30, 4.5 hours

Cost: \$57.00 USD per person

AP-02: Antelope Island, Great Salt Lake and Ogden Union Station

Date: 9 October, 2014 – 09:00-16:30, 7.5 hours

Cost: \$74.00 USD per person

AP-03: Great Salt Lake and Salt Lake City

Date: 9 October, 2014 – 13:00-17:00, 4 hours

Cost: \$42.00 USD per person

AP-04: Gardens of Salt Lake with Temple Square & Red Butte

Date: 10 October, 2014 – 08:00-12:00, 4 hours

Cost: \$52.00 USD per person

AP-05: Snowbird Resort and Tram to the Top of the Wasatch

Date: 10 October, 2014 – 13:00-17:30, 4.5 hours

Cost: \$67.00 USD per person

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Section #5
DAILY SCIENTIFIC PROGRAM

Technical Sessions

are held in two time blocks, 08:00-10:30 & 15:30-18:00, on Monday, Tuesday, Thursday & Friday; and on Saturday from 08:00-10:30.

Poster Presentations & Viewing Sessions will be held Tuesday and Friday during the lunch break.

The scientific program for the XXIV IUFRO World Congress will consist of plenary, sub-plenary, technical, and themed poster sessions. The program reflects diverse contributions from the forest science community across the full range of natural and social science disciplines.

Sessions are organized around the Congress themes:

- Forests for People
- Forest Biodiversity and Ecosystem Services
- Forests and Climate Change
- Forest and Water Interactions
- Forest Biomass and Bioenergy
- Forests and Forest Products for a Greener Future
- Forest Health in a Changing World

Plenary Sessions

Keynote plenary sessions on Monday, Tuesday, Friday, and Saturday from 11:00-12:00. In addition to the traditional IUFRO plenary sessions, a joint plenary session, co-organized by IUFRO, the Society of American Foresters, and the Canadian Institute of Forestry, will be held on Thursday from 08:30-12:00. Please see the next few pages for plenary speaker biographies and information.

Sub-Plenary Sessions

Unique sub-plenary sessions will be offered each day (excluding Wednesday for the In-Congress Tours). These sessions will provide a broad overview of the state of knowledge on key issues related to each of the Congress themes.

Technical Sessions

168 technical sessions, featuring the latest advances in forest and natural resources science will be offered. IUFRO delegates are invited to participate in any of the Society of American Forester/Canadian Institute of Forestry offered and co-located technical sessions, 8-11 October.

Poster Sessions

Poster presentations will be held in Hall 1 from 12:00-13:30 on Tuesday and Friday and in selected technical sessions during the week.

Responsibilities of Presenters

Oral presentations must be loaded into the presentation management system at least 24 hours before their scheduled session. The presentation management system is available online or you can visit the Speaker Ready room provided in the Salt Palace (Room 254B). Technical staff will be available in the room to provide assistance. Posters should be placed in the poster hall no later than 12:00, 6 October. Detailed instructions for all presenters can be found at: <http://iufro2014.com/scientific-program/presentation-guidelines/>

Plenary Speaker Information

IUFRO 2014 Congress Keynote Speakers

Andy Buchanan

Modern Timber Buildings from Sustainable Forests



Dr. Andy Buchanan is Professor of Timber Design at the University of Canterbury, New Zealand. He is a structural engineer with a broad range of interests in timber engineering, sustainability, fire safety, and earthquake engineering. He has led the development of post-tensioned timber for multi-story buildings. Dr. Buchanan's current research supports the construction of innovative timber buildings in Australia and New Zealand, including the rebuilding of Christchurch after recent devastating earthquakes. He has a B.E. (Honors) degree from the University of Canterbury, a Master's degree from the University of California at Berkeley, and a Ph.D. from the University of British Columbia, Canada. Prior to joining the University of Canterbury in 1987, he was a consulting engineer in private practice, involved in structural design of a wide range of buildings. He has wide experience with conservation groups, the timber industry, and the building construction industry. He is Research Director of the Structural Timber Innovation Company, past President of the New Zealand Timber Design Society, and is a Distinguished Fellow of IPENZ, the Institution of Professional Engineers New Zealand. Dr. Buchanan received a 2013 New Zealand Institute of Architects (NZIA) President's Award in recognition of his significant contribution to architecture in the built environment in New Zealand.

Date: Monday 6 October

Session Chair: Andrew Wong

David Newbery

On maintaining cycles and feedbacks in tropical forest ecosystems: some thoughts from basic research



Dr. David Newbery is Professor for Vegetation Ecology at the Institute of Plant Sciences, University of Bern, Switzerland, with special focus on tropical forest ecology. His other areas of expertise lie in data analysis and theoretical ecology. Dr. Newbery's work focuses on basic research, though sometimes with view to application in forest management. Three features of his publications are: a long-term commitment through field work at key sites, the ecosystem-community level of enquiry, and the corresponding theory and statistical modeling involved. He was formerly editor of Journal of Tropical Ecology. In 1985 he initiated a research program at Danum Valley, Sabah, Malaysia, and continues research there today. This site now has a world-class tropical research station. Dr. Newbery has had a detailed program of forest research in Korup National Park in southwest Cameroon since 1984. This site is in one of Africa's most significant refugia. The central aim overall has been to reach a deeper understanding of tree growth and survival, and forest dynamics, set in an ecosystem framework. These topics and experiences have strongly shaped his ongoing interests in the philosophy of science applied to problems of ecosystems dynamics.

Date: Tuesday 7 October

Session Chair: Su See Lee

Carol J.P. Colfer*The People and Forests Trajectory- 1994-2014 and Beyond*

Carol J. Pierce Colfer is a Senior Associate at the Center for International Forestry Research and a Visiting Scholar at Cornell University's Southeast Asia Program in Ithaca, New York. She received her MA and PhD in Cultural Anthropology at the University of Washington (Seattle, Washington, 1974), and in 1979, received a second Masters in International Public Health from the University of Hawaii. Her professional life has been interdisciplinary and international in nature, including long stints of ethnographic fieldwork in the forests of Washington State (rural US) and Indonesia (Borneo, Sumatra). Beginning in 1994, with her employment at CIFOR, she began to focus on comparative research, looking at criteria and indicators for sustainable forest management, decentralization and devolution, human health, rights and resources, and landscapes. From 1998-2002, she co-developed and led the adaptive collaborative management program spanning 30 sites in 11 countries, with some 90 collaborators (described in *The Complex Forest and The Equitable Forest*, 2005). Her most recent book is *Collaborative Governance of Tropical Landscapes* (edited with Jean-Laurent Pfund, 2011). Her current work focuses on the governance and equity aspects of landscape management in southern Sulawesi, Indonesia. At Cornell she has contributed to a doctoral program on poverty alleviation and food security in East Africa; an evolving Cornell-Makerere University program (GREAT) to provide faculty with training on gender; and various doctoral committees.

Date: Friday 10 October
Session Chair: Daniela Kleinschmidt

**Cecil C. Konijnendijk van den Bosch***City Forests, Forest Cities – exploring the complex liaison between the sylvan and the urban*

Dr. Konijnendijk, a Dutch national based in Sweden, holds the post of Head of the Department of Landscape Architecture, Planning and Management at the Swedish University of Agricultural Sciences. He is also part-time professor of green space management at the University of Copenhagen. Dr. Konijnendijk has a M.Sc. in forest policy from the University of Wageningen, Netherlands, and a D.Sc. (in forest policy and economics) from the University of Joensuu, Finland. His past affiliations include Wageningen University, the European Forest Institute, and his own consulting firm. During his career, Dr. Konijnendijk has studied and promoted the role of forests, trees, and other green spaces in urban societies. He has a special interest in the concepts of urban forestry and urban greening, green space and forest governance, urban ecosystem services, as well as communication and public involvement issues. Dr. Konijnendijk is the (founding) editor-in-chief of the scientific journal *Urban Forestry and Urban Greening*, published by Elsevier since 2002. His over 250 scientific and professional publications have included the co-edited textbook *Urban Forests and Trees* and the book *The Forest and the City: The cultural landscape of urban woodland*. Dr. Konijnendijk has been involved in networking and project activities across the globe.

Date: Saturday 11 October
Session Chair: Tuija Sievänen



Joint Plenary with SAF & CIF

Note: Different plenary start and end time: 08:30-10:30 & 11:00-12:00

Date: Thursday 9 October

Keynote Speakers: 08:00-10:30: Jack Dangermond and David George Haskell

Panel: 11:00-12:00: Jack Dangermond, David Haskell, Mila Alvarez, Sally Collins & Mike Wingfield

Moderator: Nalini Nadkarni

Knowledge Discovery, Synthesis, and Application at the Forest Science/Management Interface

Jack Dangermond – Keynote Speaker



Mr. Jack Dangermond is the founder and president of Esri, the widely recognized leader in geographic information system (GIS) technology. More than one million users in over 300,000 organizations use Esri products worldwide. A pioneer in spatial analysis methods, Mr. Dangermond is one of the world's most influential people in GIS. He and his wife Laura Dangermond actively manage Esri as co-owners. For more than 40 years he and his team of forest experts have worked with foresters from around the world to create geospatial tools that improve forest management. Mr. Dangermond is a member of many professional organizations and has served on many advisory committees for U.S. agencies. Mr. Dangermond has a Master of Architecture degree from the Institute of Technology at the University of Minnesota and a Master of Science degree in landscape architecture from the Graduate School of Design at Harvard University. In addition, he holds ten honorary doctorates. Having taken a leadership role in national and global initiatives to facilitate standards for data access and sharing across agencies, Mr. Dangermond has received numerous awards. Among these are the Distinguished Public Service Award from the Secretary's Open Forum of the U.S. Department of State, and the Alexander Graham Bell Medal from the National Geographic Society. Mr. Dangermond is forging ahead with GIS platforms on which people collaborate to design plans for maintaining a green and sustainable planet.

David George Haskell – Keynote Speaker



David Haskell's work integrates scientific and contemplative studies of the natural world. His book, *The Forest Unseen: A Year's Watch in Nature*, was a finalist for the 2013 Pulitzer Prize in non-fiction. The book was the winner of the 2013 Reed Environmental Writing Award, the 2012 National Outdoor Book Award for Natural History Literature, and was runner-up for the 2013 PEN/E. O. Wilson Literary Science Writing Award. A profile in *The New York Times* said of Haskell that he "thinks like a biologist, writes like a poet, and gives the natural world the kind of open-minded attention one expects from a Zen monk rather than a hypothesis-driven scientist". Haskell holds degrees from the University of Oxford and from Cornell University. He is Professor of Biology at the University of the South. He is a Fellow of the American Council of Learned Societies and was granted Elective Membership in the American Ornithologists' Union. His scientific research on animal ecology, evolution and conservation has been sponsored by the National Science Foundation, the Environmental Protection Agency, the Fish and Wildlife Service, and the World Wildlife Fund, among others. He has also served on the boards and advisory committees of local and regional land conservation groups. In 2009, the Carnegie and CASE Foundations named him Professor of the Year for Tennessee. The *Oxford American* featured him as one of the southern U.S.'s most creative teachers (2011). He lives in Sewanee, Tennessee, with his wife, Sarah Vance who runs Cudzoo Farm, a homestead farm that produces hand-made goat milk soaps.



Mila Alvarez – Panelist

Mila Alvarez is the Principal of Solutions for Nature, a consulting firm specialized in research and analysis in the fields of domestic and international natural resources policy, management and decision-making. Dr. Alvarez is also a Professor at Virginia Polytechnic Institute and State University, Center for Leadership in Global Sustainability, College of Natural Resources. Alvarez holds a Ph.D. in Forest Resources from the University of Maine and a Master-Bachelor degree in Forest Engineering from the Polytechnic University of Madrid, Spain.



Sally Collins – Panelist

Sally Collins served as the first Director of the USDA Office of Environmental Markets (OEM) prior to retiring from USDA. She has spent more than 25 years in natural resource management, in such positions as Forest Supervisor of the Deschutes National Forest and as Associate Chief for the U.S. Forest Service. Ms. Collins currently owns a consulting firm dedicated to international forestry and ecosystem services valuation. She works as a Fellow with Rights and Resources Initiative (RRI) to help the largest forested countries of the world establish secure tenure arrangements and laws for their forested estates and is co-chair of MegaFlorestais, an organization established to informally connect the top forest leaders in the world.



Mike Wingfield – Panelist

Dr. Michael (Mike) Wingfield has conducted research on tree pests and pathogens especially concerning their global movement for more than thirty years. Among his most important contributions to forestry has been his role as an advisor to more than 60 Ph.D. students. He is the founding Director of the Forestry and Agricultural Biotechnology Institute in South Africa. He has published widely on the topic of tree health in more than 700 research papers and seven books. Dr. Wingfield has been recommended to the IUFRO International Council as the next IUFRO President.



Nalini Nadkarni – Moderator

Dr. Nalini Nadkarni has been both a pioneer in forest canopy studies and in communication of forest canopy research to scientists and the public. In 2011, she became the Director of the Center for Science and Mathematics Education, and a Professor of Biology at the University of Utah. She has published over 100 scientific articles and three scholarly books, including "Between Earth and Sky: Our Intimate Connections to Trees". Dr. Nadkarni is deeply committed to public engagement with science. In 1994, she founded the International Canopy Network, an NGO to foster communication among researchers, educators, and conservationists.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

Technical Sessions by Theme

Monday 6 October - Technical Session Overview

Afternoon 15:30-18:00

Forests For People

- A-02: Forests And Human Health: The Role Of Research Towards Evidence-Based Practice
- A-04: Resilience And Identity With Urban Forests: A Landscape System Approach
- A-06: Forest-Dependent Community Development
- A-17: Linking Landscape, Forests And People: The Historical Roots Of Biocultural Diversity
- A-21: Coppice Forests - A Tradition With Future
- A-25: Reforming Forest Tenure And Governance For Mitigating Climate Change And Improving People's Livelihoods
- A-30: Achieving Policy Integration Across Fragmented Domains: Forest Policy Perspectives
- A-35: The Social Education Of Foresters

Forest Biodiversity And Ecosystem Services

- B-04: Long-Term Forest Research On Forest Ecosystem Management
- B-11: Forest Management For Wildlife Conservation
- B-14: Ecosystem Services Provided By Planted Forests

Forests And Climate Change

- C-05: Gender, Participation And Climate Change
- C-09: Dendrochronology: Detecting And Modelling Climate Change And Fire Impacts
- C-22: Advances In Forest Carbon Measurements And Monitoring For Building REDD+ MRV Systems
- C-24: Adaptive Forest Management Under Climate Change – Networking From Local To Global Scales In The Temperate Zones

Forests And Water Interactions

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

Forest Biomass And Bioenergy

- E-03: Evaluation Of Environmental Impacts Of Production And Use Of Wood Products And Wood Energy
- E-07: Genomics And Biotechnology For Improvement Of Woody Energy Crops

Forests And Forest Products For A Greener Future

- F-06: Impact Of Forest Certification On Sustainable Forest Management
- F-16: Bio-Based Composite And Engineered Products From Wood And Non-Wood Forest Resources
- F-17: Recovery, Reuse, And Recycling Of Wood Products For A Greener Future

Forest Health In A Changing World

- G-01: Air Pollution As A Factor Affecting Global Forest Health
- G-10: Multiple Risk Management In Planted Forests

Student Incubator Sessions

- I-1: IUFRO Incubator 1

TUESDAY 7 OCTOBER – TECHNICAL SESSIONS OVERVIEW

MORNING 08:00-10:30

Forests For People

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

A-03A: The Value And Challenges Of Integrating Food And Medicinal Forest Products Into Forest Management

A-05: Challenges And Opportunities In Forest Management And Utilization In Rapidly Changing Asian Economies

A-18A: Value Of Traditional Knowledge For Sustainable Forest Management

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

A-27A: International To Local Forest Governance: Taking Stock Of Political Theories, Methodologies And Research Findings

A-38: How To Make Forest Science Available For All? Publishers', Editors', And Authors' Challenges

Forest Biodiversity And Ecosystem Services

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

B-07A: Silvicultural Practices To Facilitate Forest Restoration

B-19A: Forests, Roots And Soil Carbon

Forests And Climate Change

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

C-08: Managing Forest For Fire In A Changing Climate

C-17: New Developments In The Use Of Remote Sensing And National Forest Inventories For Estimation And Mapping.

C-19: Implementation Of Silvicultural Treatments And Their Effects Into Forest Growth Models

C-26: Forest Owners And Climate Change Adaptation

Forests And Water Interactions

D-05A: Managing Forests And Forest Uses To Protect And Provide Clean Water

Forest Biomass And Bioenergy

E-01A: Sustainable Biomass For Energy And Industrial Raw Materials

E-08A: Biobased Products And Bioenergy

Forests And Forest Products For A Greener Future

F-05: Gender And Forestry Value Chains

F-18: Emerging Green And Sustainable Alternatives To Classical Wood Preservative To Protect Forest Products

Forest Health In A Changing World

G-07: Is Climatic Change Modifying The Characteristics Of Insect Damage In Forests?

G-16: Forest Health In Changing Landscapes: The Roles Of Landscape Patterns

Student Incubator Sessions

I-2: IUFRO Incubator 2

TUESDAY 7 OCTOBER - TECHNICAL SESSIONS OVERVIEW

AFTERNOON 15:30-18:00

Forests For People

A-03B: The Value And Challenges Of Integrating Food And Medicinal Forest Products Into Forest Management

A-09: Communities, Forests, Forest Industries And The Social License To Operate

A-13: Innovative Planning And Managing Approaches For Sustainable Tourism In Forests And Natural Areas

A-18B: Value Of Traditional Knowledge For Sustainable Forest Management

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

A-27B: International To Local Forest Governance: Taking Stock Of Political Theories, Methodologies And Research Findings

A-34: Forestry Education Serving Science And Practice

Forest Biodiversity And Ecosystem Services

B-05B: The Benefits Of Introducing The Ecosystem Service Concept In Forest Management And Planning At Different Spatial Scales

B-07B: Silvicultural Practices To Facilitate Forest Restoration

B-19B: Forests, Roots And Soil Carbon

Forests And Climate Change

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

C-07: Forests, Fire And Climate Change Dynamics

C-14: Forest Biomass And Carbon Inventory On Successive Occasions

C-21: Complying With The IPCC Good Practice Guidance For Tropical Carbon Stock Inventories

Forests And Water Interactions

D-05B: Managing Forests And Forest Uses To Protect And Provide Clean Water

Forest Biomass And Bioenergy

E-01B: Sustainable Biomass For Energy And Industrial Raw Materials

E-08B: Biobased Products And Bioenergy.

Forests And Forest Products For A Greener Future

F-10: Precision Land-Use Management - State And Perspectives

F-13: Planted Forests: Meeting Future Global Forest Product Needs Sustainably

Forest Health In A Changing World

G-02: Ozone And Forest Health

G-11: Societal Impacts Of Invasive Forest Pathogen And Pests

G-17: Changes In Distributional Ranges In A Changing World

Student Incubator Sessions

I-3: IUFRO Incubator 3

THURSDAY 9 OCTOBER – TECHNICAL SESSIONS OVERVIEW

MORNING 08:00-10:30

Forests For People

A-14: Integrating Landscape Protection, Nature-Based Recreation And Tourism, And Rural Development

A-19: Wood And Forest Culture: Merging The Past With The Present

A-26: Impact Of Tenure Arrangements On Forests, Livelihoods And Gender Dynamics

Forest Biodiversity And Ecosystem Services

B-12: Forest Management In Montane Communities.

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

Forests And Climate Change

C-16: Remote Sensing In Carbon Balance Evaluation And Monitoring

C-20: National Forest Sector Greenhouse Gas Inventories Following IPCC Guidance And Guidelines: Requirements, Methods, And National Examples

Forests And Water Interactions

D-02A: Conceptual Frames And Research Strategies For Integrated Studies Of Adaptation To Drought

Forest Biomass And Bioenergy

E-04A: Forest Biomass Supply Chains: Practice, Economics, And Carbon Balance

Forests And Forest Products For A Greener Future

F-09A: Sustaining Bamboo And Rattan Resources

F-15: Applications Of Nanotechnology And Biotechnology In Forest Products Research

Forest Health In A Changing World

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

G-14A: Impact And Monitoring Of Forest Pests And Pathogens In A Changing World

THURSDAY 9 OCTOBER - TECHNICAL SESSIONS OVERVIEW

AFTERNOON 15:30-18:00

Forests For People

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

A-15: The Future Of Recreation In Forests And Other Nature Areas

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

A-28: Ineffective International Forest Policy? The Role Of Forest Information, International Law And Politics

A-33: Richer Economies, Better Environmental Policies? Analyzing The "Environmental Question" In Forest Policy In OECD Countries

Forest Biodiversity And Ecosystem Services

B-02: Urban Forest Diversity And Ecosystem Services

B-08: Forest Regeneration: Challenges And Prospects

B-10: How Does Biodiversity Help To Manage High-Value Timber Species, And Vice-Versa?

B-15: Forest Ecosystem Services Contributing To Agriculture

B-17: Salamanders: World Icons Of Aquatic Biodiversity In Forests

Forests And Climate Change

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

C-10: Vegetation Zone Shifts In Response To Climate Change

C-23A: Forest Management For Adaptation To Climate Change

C-25: Forest Management Options To Tackle Climate Change

Forests And Water Interactions

D-02B: Conceptual Frames And Research Strategies For Integrated Studies Of Adaptation To Drought

D-09: Ecology And Management Of Coastal Forests And Mangroves

Forest Biomass And Bioenergy

E-04B: Forest Biomass Supply Chains: Social And Economic Aspects Of Forest Biomass For Fuelwood And Domestic Heating Applications.

Forests And Forest Products For A Greener Future

F-01: Innovation In The Forest Sector: Maximizing The Sector's Competitiveness

F-09B: Sustaining Bamboo And Rattan Resources

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

Forest Health In A Changing World

G-03: Critical Loads For Nutritional Nitrogen Deposition: Progress And Problems

G-14B: Impact And Monitoring Of Forest Pests And Pathogens In A Changing World

FRIDAY 10 OCTOBER - TECHNICAL SESSIONS OVERVIEW

MORNING 08:00-10:30

Forests For People

- A-08A: Small-Scale And Community Forestry For People, Biodiversity And Ecosystem Services
- A-16: Ethics And Values In Relation To Forest, Wildlife And Recreation Management
- A-22: Forests Under Pressure: Prerequisite Conditions For Forest-Related Sustainable Development
- A-29: The Knowledge That Counts – Analyzing Science Policy Interactions In Forest Policy
- A-37A: Knowledge Exchange And Communication Of Forest Research For Human And Community Well-Being

Forest Biodiversity And Ecosystem Services

- B-03: Providing Ecosystem Services Under Climate Change: Community Of Practice Of Forest Decision Support Systems
- B-06A: Research And Management Implications Of The Economics Of Ecosystem Services
- B-09A: What Future For Tropical Silviculture?
- B-16A: Contribution Of Genetics And Genomics To Conservation And Sustainable Management Of Forests Under Changing Environmental Conditions

Forests And Climate Change

- C-03: Understanding The Relationships Among Biodiversity, Carbon, And People For REDD+ Forests: The Importance Of Environmental And Social Safeguards
- C-11: Forest Resistance And Resilience In The Face Of Natural Hazards
- C-12A: Quantifying Uncertainty In Forest Measurements And Models: Approaches And Applications
- C-23B: Forest Management For Adaptation To Climate Change
- C-30: Novel Ecosystems And Intervention: Adaptation To Climate Change

Forests And Water Interactions

- D-03: Land Use/Land Cover Change And Hydroecology: Consequences At Variable Spatial Scales.
- D-08: Sustaining Riparian Biodiversity And Ecosystem Services In A Changing Climate

Forest Biomass And Bioenergy

- E-02A: Environmental Impacts Of Intensive Management Of Forest Soils For Timber And Bioenergy Production.

Forests And Forest Products For A Greener Future

- F-04: Greening Society And Non-Wood Forest Product Commercialization: Assessing The Environmental, Economic And Social Trade-Offs
- F-11A: Forest Operations Engineering And Management - The Way Ahead

Forest Health In A Changing World

- G-05: Global Approaches To The Biological Control Of Invasive Eucalyptus Pests
- G-12: The Co-Evolution Of Insects And Fungi That Form Symbiotic Relationships And Kill Forest Trees
- G-13: Modeling As A Tool For Improving The Knowledge On Forest Vulnerability And Risk Exposure In A Changing World

FRIDAY 10 OCTOBER - TECHNICAL SESSIONS OVERVIEW

AFTERNOON 15:30-18:00

Forests For People

- A-08B: Small-Scale And Community Forestry For People, Biodiversity And Ecosystem Services
- A-12: Participatory Protected Area Management At The Human Needs And Sustainable Wildlife Conservation Interface
- A-23A: Transitions To Sustainable Forest Management: Economic, Social And Cultural Parameters
- A-32: Innovative Forest And Environmental Legislation For Better Diversity
- A-37B: Knowledge Exchange And Communication Of Forest Research For Human And Community Well-Being

Forest Biodiversity And Ecosystem Services

- B-06B: Research And Management Implications Of The Economics Of Ecosystem Services
- B-09B: What Future For Tropical Silviculture?
- B-13: Oak Regeneration To Maintain Biodiversity Around The World
- B-16B: Contribution Of Genetics And Genomics To Conservation And Sustainable Management Of Forests Under Changing Environmental Conditions

Forests And Climate Change

- C-15: Monitoring Soil Carbon Stocks And Dynamics At Variable Spatial Scales
- C-12B: Quantifying Uncertainty In Forest Measurements And Models: Approaches And Applications
- C-28: Tropical Forest Wetlands, Climate, And Land-Use Change: Adaptation And Mitigation Opportunities
- C-29: Desertification, Land Degradation And Drought

Forests And Water Interactions

- D-06: Role Of Disturbance In Maintaining And Stimulating Aquatic Biological Diversity In Temperate Forest Ecosystems

Forest Biomass And Bioenergy

- E-02B: Environmental Impacts Of Intensive Management Of Forest Soils For Timber And Bioenergy Production.
- E-06: Emerging Technologies For Forest Resource Assessment And Genetic Improvement

Forests And Forest Products For A Greener Future

- F-03: Contributions Of Business And Marketing To A Greener Future
- F-07: Forest Governance And Legality Of Timber: Challenges Of Legality In Practice
- F-08: Forest Resources Assessment For Non-Wood Forest Products
- F-11B: Forest Operations Engineering And Management - The Way Ahead

Forest Health In A Changing World

- G-04: Emerging Invasive Forest Pathogens
- G-09: Ecology And Management Of Invasive Wood Boring Pests In A Changing World

SATURDAY 11 OCTOBER - TECHNICAL SESSIONS OVERVIEW

MORNING 08:00-10:30

Forests For People

A-10: Establishing Social Institutions For Co-Management Of Public Forest Lands

A-11: American Indian Forestry

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

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

A-36: From Data To Knowledge, Geospatial Tools And Information Access

Forest Biodiversity And Ecosystem Services

B-01: The Future Of Ecosystem Services From Forests

B-20: Radioactive Contamination In Forest Ecosystems And Safe Uses Of Forest Products

Forests And Climate Change

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

C-13: Modeling And Simulation Systems

C-18: Using Multi-Source Remotely Sensed Data And Nearest Neighbor Techniques To Improve Inference For Natural Resource Applications.

C-27: Sustainable Management Of Spruce Dominated Ecosystems In Response To Climate Change

Forests And Water Interactions

D-04: Hydroecological Studies In The Mediterranean Region

D-07: Impacts Of Forest Roads On Water Resources And Aquatic Habitat

Forest Biomass And Bioenergy

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

Forests And Forest Products For A Greener Future

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

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

Forest Health In A Changing World

G-08: Consequences Of Changing Trophic Interactions On Forest Insect Population Dynamics

G-15: Monitoring Emerging Threats To Forest Health In North America Across Regional To National Scales

G-18: Research On Pathway Risk Management And Phytosanitary Policy To Prevent Invasions Of Forest Insects And Pathogens

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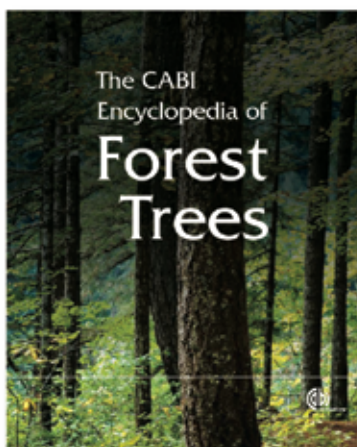
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WEEK AT A GLANCE

	Monday 6 October			Tuesday 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	I-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

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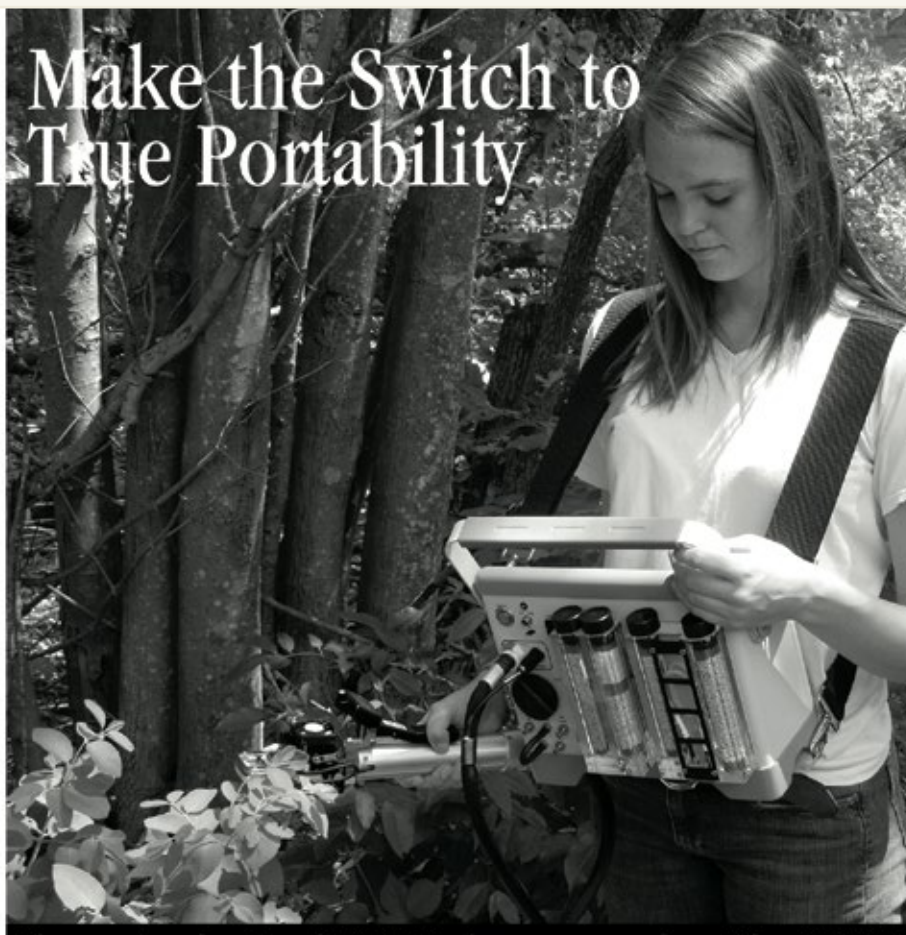
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MONDAY 6 OCTOBER

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 are needed to catch the imagination of investors and to increase the confidence of all players in the supply chain. New timber 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 the world provide products and services that maintain and improve human health and well-being, and the values and challenges of integrating the forest resources that supply these products and 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 Integrating The Economics Of Ecosystem Services Into Sustainable Forest Management

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 As An Ecosystem Service	Donald Hodges	United States
Valuation Of Ecosystem Services Using The Life Satisfaction Approach	Shashi Kant	Canada

SP-03 Forest Health In A Changing World

Room: 155 F

Organizers: Tod Ramsfield (NRCan-Canadian Forest Service) & Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute)

Moderators: Tod Ramsfield & Eckehard Brockerhoff

Descriptions: This session will examine the role of global change on pest population dynamics, pathway management and global trade, science-policy interactions and forest resilience to promote sustainable forest ecosystems under changing conditions.

Loss Of Resilience Leads To Low Productivity In A Chilean Hardwood Forest	Ian Thompson	Canada
Forest Biodiversity And Forest Health	Kimiko Okabe	Japan
Synergies, Feedbacks And Tipping Points: Mountain Pine Beetle's Rapid Range Expansion Threatens Invasion Of North American Boreal Pine Forests	Allan Carroll	Canada
International Trade In Live Plants: Rationale For Mitigating A High-Risk Pathway For The Introduction Of Forest Pests And Pathogens	Michael Wingfield	South Africa

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 – FVA, Germany), Peter Mayer (PM) (Austrian Research Centre for Forests - BFW), Jimmy Reaves (U.S. Forest Service)

Moderators: Peter Mayer & Konstantin von Teuffel

Description: Research in forestry increasingly needs to cross the boundaries of scientific disciplines. The IUFRO Directors' Forum will discuss how to organize, fund and manage research in order to maintain the relevance of forest-focused research institutions for the benefit of forests 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 Presentations:

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	Iwao Uehara	Japan

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

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 forests are an important asset for livelihoods, incomes, subsistence, health, and culture.	
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

Local Stakeholder's Assessment Of Community-Based Forest Management And The Potentials Of Redd Plus	Rose Jane Peras	Philippines
How Do You Do Access? Indigenes And Forest Resources In A Conflict-Affected Indian Region	Siddharth Sareen	Denmark
Community Based Forest Management: An Experience That Goes From The Field Work To The Improvement Of Indigenous Community's Livelihood	Alipse Valera	Peru
Indigenous Associations In The Peruvian Amazon: The Comuneros' Perspectives	Andrea Vasquez	Canada

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 of China) & Steven Anderson (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 Fatik 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 (<i>Quercus Libani</i> 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 Presentations:		
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 (<i>Acer Pseudoplatanus</i> 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 Hognl (University of Natural Resources and Life Sciences, Austria) & Daniela Kleinschmit (Swedish University of Agriculture Sciences)	
Moderators:	Karl Hognl & 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 & Batkhuy 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 Rooney		
Description:	This session will feature recent studies from around the world that highlight the importance of forest management for wildlife conservation, an increasingly important issue in research and for managers.		
	An Evaluation Of The Effects Of Sika Deer On Forest Regeneration Based On Observation Of Browsed Shoots	Nobuhiro Akashi	Japan
	The Attractiveness Of Managed Scots Pine Forests In Different Age As A Foraging Site For Bats	Witold Grzywinski	Poland
	Epigaic Beetle Assemblages In Boreal Forests – Relationships To Environmental Factors And Management History	Therese Johansson	Sweden
	Long-Term Effects Of Forest Management On Reindeer Grazing In Northern Sweden: A Scenario Analysis Approach	Anu Korosuo	Sweden
	Partial Retention Harvest Benefits Songbird Assemblages In The Boreal Forest Of Canada	Sonya Odsen	Canada
	Simulating The Long-Term Effects Of Tree Retention And Forest Set-Asides On The Availability Of Biodiversity Structures At The Landscape Scale	Jean-Michel Roberge	Sweden
	Bird And Insect Pollinators Respond Similarly To Aspen Forest Stand Development In Northern Wisconsin, USA	Amber Roth	United States
	The Effects Of Landscape Heterogeneity And Ungulate Density On Understory Vegetation In Northwestern Pennsylvania	Alejandro Royo	United States
	Pinyon Jay Nest And Cache Site Selection In Pinyon-Juniper Woodlands Of The Great Basin	Chris Witt	United States

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

Room:	250 E		
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) Gender, Participation, And Climate Change

Room: 251 A-C

Organizers: Bimbika Sijapati Basnett, Esther Mwangi (CIFOR, Indonesia), Peter Cronkleton (CIFOR, Peru) & Terry Sunderland (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 change and disturbance events in forest ecosystems of different regions.

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.

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

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

Room: 150 G

Organizers: Andreas Bolte (Thünen Institute of Forest Ecosystems, Germany), John Stanturf (U.S. Forest Service) & Palle Madsen (University of Copenhagen, Denmark)

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

// 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 long-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

Impacts Of Reforestation Of Denuded Land On The Streamflow Regime In A Weathered Granite Mountain Area	Hyung Tae Choi	Republic of Korea
Ecosystem Dynamics Controlled By The Seasonal Distribution Of Precipitation In Forests Of Interior Alaska	John Yarie	United States
Seventy-Seven Years Variation Of Annual Evapotranspiration In Small Watershed With The Forest Restoration And Succession On Denuded Hills	Koichiro Kuraji	Japan

// FOREST BIOMASS AND BIOENERGY

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

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 to evaluate forestry and forest product, environmental performance issues related to carbon flows, emerging biomass-conversion technologies, and avoided GHG emissions by product substitution.	
	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 Hjalten	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

F-16 (258) Bio-Based Composite And Engineered Products From Wood And Non-Wood Forest Resources

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, processing and utilization of bio-based composites and engineered bio-based products from wood and non-wood forest resources linked to the efficient use of forest residues and plantation resources.

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	Yulianti 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 Presentations:

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

F-17 (186) Recovery, Reuse, And Recycling Of Wood Products For A Greener Future

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, and recycle construction waste, and end-of-use wood products along with manufacturing residues.

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), Andrzej Bytnerowicz (U.S. Forest Service) & Robert Jandl (Research and Training Centre for Forests, Natural Hazards and Landscape, Austria)	
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 IUFRO Divisional Representatives & The International Forestry Students Association (IFSA)	
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 (<i>Cercopithecus Campbelli</i> Lowe) 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 <i>Fagus Sylvatica</i> Near To The Lower Edge Of Distribution In Hungary	Balázs Garamszegi	Hungary
Dendroclimatic Relationships And Possible Implications For Oak (<i>Quercus</i> 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 <i>Halopegia Azurea</i> (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 <i>Cedrela Odorata</i> L. And Incidence Of <i>Hypsipyla Grandella</i> Zeller As Affected By Nutrient Management	Celi Gloria Calixto	Mexico
Cultural Practices For Producing <i>Enterolobium Cyclocarpum</i> And <i>Swietenia Humilis</i> 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 <i>Lantana</i> 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 (<i>Fagus Sylvatica</i> 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 <i>Quercus Petraea</i> And <i>Quercus Robur</i> In Forest Căpřiana, Republic Of Moldova	Balazs Glavan	Moldova
Experimental Study Of The Effect Of The Exotic Invasive Shrub <i>Rhamnus Frangula</i> 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 <i>Populus Euphratica</i> Riparian Forest Located In The Vicinity Of Ejina Oasis, Inner Mongolia, China	Xiaogang Li	China

NOTES

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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), Hervé Jactel (INRA, France) & Peter Freer-Smith (Forest Research, UK)

Moderator: Eckehard Brockerhoff

Description: This session will review a range of ecosystem services provided by biodiversity in planted forests, identify the state of knowledge for each area, and outline innovative measures by which the provision of ecosystem services from planted forests could be enhanced, 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	Pierre Bernier	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 Forest Service), Martin Hostettler (Cycad Inc., Switzerland) & Peter Deegen (Technische Universität Dresden, Germany)

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 (University of Copenhagen, Denmark) & Tytti Sarjala (Finnish Forest Research Institute)

Moderators: James Chamberlain & Carsten Smith-Hall

Description: This session will explore the state of knowledge on how forests around the world provide products and services that maintain and improve human health and well-being, and the values and challenges of integrating the forest resources that supply these products and 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

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) Challenges And Opportunities In Forest Management And Utilization In Rapidly Changing Asian Economies

Room:	151 D	
Organizers:	Ajith Chandran, Lianzhen Xu, Weiye Wang & Monika Singh (University of British Columbia, Canada)	
Moderators:	Simmathiri Appanah (FAO Regional Office for Asia and the Pacific, Thailand) & Guangyu Wang (University of British Columbia)	
Description:	This session will examine recent research combined with rural community-based forest management experiences, highlighting the value of learning from a diverse knowledge base and the importance of effective communication strategies in Asian economies.	
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 Presentations:		
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 Forest Protection: Case Study From Southwest Nigeria	Folaranmi Babalola	Nigeria

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 China--A 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

Room: 150 A

Organizers: 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)

Moderator: William Armand Mala

Description: 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

Poster Presentations:

Impact Of Land Use Practices On Traits And Production Of Shea Butter Tree (<i>Vitellaria Paradoxa</i> 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

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 Laforzezza	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), 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.

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 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 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 Presentations:

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 Analysis), Austria), Gilberto Camara (National Institute for Space Research-INPE, Brazil); Martin Tadoum (The Central African Forestry Commission-COMIFAC, Cameroun) & Valarie Kapos (UNEP World Conservation Monitoring Centre, UK)

Moderator: Michael Obersteiner

Description: This session aims at presenting and discussing the latest research on tropical deforestation and degradation drivers, public and private sector efforts addressing these and the identification of effective future invention options based on forest and land-use policies.

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

Room: 251 A-C

Organizers: Cristina Aponte, Helen Vickers, Thomas Fairman (University of Melbourne, Australia) & William Elliot (U.S. Forest Service)

Moderators: Cristina Aponte & Helen Vickers

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 Ecosystems Of The Western U.S.	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 Presentations:		
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 Hailemariam (Oregon State University)

Description: This session presents the integration of remotely sensed data and statistical survey information including national forest inventories with an emphasis on large landscape estimation and mapping at the national and global scale of forest metrics such as biomass, carbon, and soils.

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 Presentations:		
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 Skovsgaard (Swedish University of Agricultural Sciences)

Moderators: Margarida Tomé & JP Skovsgaard

Description: This session will explore how silvicultural treatment effects, such as those associated with thinning, regeneration, and fertilization, are incorporated into current forest growth models and how these may be improved to better support forest management decisions.

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 (INRA, 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 Presentations:			
	Effects Of Historic Forest Disturbance On Water Quality And Flow In The Interior Western U.S.	Marek Matyjasik	United States

Interception 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 In Mexico	Patricia Hernández-de la Rosa	Mexico
The 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 And Challenges In Biomass Harvest And Logistics In The Northeastern United States	Jingxin Wang United 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, Indonesia) & 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 Presentations:		
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 (University of California, Riverside, USA) & Rodney Keenan (University of Melbourne, Australia)	
Moderator:	Timothy Paine	
Description:	This session will focus on the effects of climate change and changing forest management systems on insect damage to trees across multiple forest types.	
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 induced by climate change through manipulation 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 Session for Students and Young Scientists (The “IUFRO Incubator” 2)

Room:	155 A-C		
Organizers:	JP Skovsgaard (Swedish University of Agricultural Sciences), other IUFRO Divisional representatives & the International Forestry Students Association (IFSA)		
Moderators:	Lilli Kaarakka (IFSA) Yousry El-Kassaby (University of British Columbia), Jamie Barbour & Ronald E. McRoberts (U.S. Forest Service)		
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 inventory and modelling, forest health, tree physiology and genetics, forest operations, engineering, products, biomass 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 Lal 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	Tara Bal	United States
	Variation In Photosynthetic Temperature Responses Across Vertical Tropical Forest Canopy Gradients	Alida Mau	United States

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, <i>Hymenoscyphus Pseudoalbidus</i>	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. <i>Geosmithia</i> 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 (<i>Santalum Album</i> L.)	Delphy Rocha	India
Genetical Differences Among Central European Cockchafer Species	Balint Meszaros	Hungary
In Vitro Propagation Of <i>Allanblackia Floribunda</i> (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 (University of Copenhagen, Denmark) & Tytti Sarjala (Finnish Forest Research Institute)

Moderators: James Chamberlain & Carsten Smith-Hall

Description: This session will explore the state of knowledge on how forests around the world provide products and services that maintain and improve human health and well-being, and the values and challenges of integrating the forest resources that supply these products and services into forest management.

Impact Of Bark And Foliage Harvesting On Fruit Production Of The Multipurpose Tree Species, <i>Azelia Africana</i> 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 Forest Management: Case Studies In Ukraine, Russia And Sweden	Stryamets Nataliya	Ukraine
Natural Resources For Human Health: The Reliance On Medicinal Plants For Health Care In Rural Nepal	Rikke Thorsen	Denmark
Traditional Knowledge Of Mushroom Production In The Changing World: The Case Of Noto-Temari And Dried Shiitake Mushroom In Oku-Noto Area, Japan	Ryo Kohsaka	Japan
Co-Managing Appalachian Hardwood Forests For Timber And Non-Timber Products	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 Lacey & Kieren Moffat (CSIRO, Australia)	
Moderators:	Peter Edwards	
Description:	This session will include presentations on a variety of aspects related to how the forest industry earns and maintains the informal approval and acceptance that communities and other stakeholders grant to a company or industry engaged in forest resource use and management.	
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)	
Moderator:	Taylor Stein	
Description:	This session's objectives are to address the multiple dimensions associated with tourism in forests and natural areas including benefits to society and local people.	
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 Liu (Renmin University of China), William Armand Mala (University of Yaounde I, Cameroon) & Ronald Trosper (University of Arizona, USA)	
Moderator:	Wil de Jong (Kyoto University, Japan)	
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.	
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

Room:	150 A	
Organizers:	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)	
Moderator:	William Armand Mala	
Description:	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.	
Biodiversity And Socioeconomic Factors Supporting Farmers' Choice Of Wild Edible Trees In The Agroforestry Systems In Benin (West Africa)	Achille Assogbadjo	Benin
REDD+ Versus Practical Silvicultural Management For Rural Society Benefits In Miombo Woodlands, Southern Africa	Coert Geldenhuys	South Africa
Sustaining Ghana's Forest Cover: Evidence Cocoa Agroforestry System	Isaac Nunoo	Ghana
Conservation And Socio-Economic Importance Of Some Agroforestry Fruit Tree Species: Farmers' Participation, Tree Growth Characteristics And Market Assessment	Jonathan Chukwujekwu Onyekwelu	Nigeria
On-Farm Trees Management Drivers Of In Smallholder Landscapes Of Southern 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

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, methodological and empirical achievements in forest governance research, from the local to the global level.	
	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 Presentations:		
	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-Jakubowicz (Warsaw University of Life Sciences, Poland), Siegfried Lewark, University of Freiburg, Germany) & Yemi Adeyeye (IFSA/Bangor University, UK)	
Moderator:	Piotr Paschalis-Jakubowicz	
Description:	In this session strategies for improving higher forestry education will be discussed, including new approaches to distance education, technology and didactics of e-learning, movement towards Open Education Resources (OER) and the growing role of universities in 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

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.	
Exploring The Relationship Between Tree Species Diversity And Forest Ecosystem Services In The Face Of Climate Change	Susana Perez	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), Heijä-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 Presentations:

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-Michel Carnus (National Institute for Environmental and Agricultural Science and Research, France), Ronald E. McRoberts (U.S. Forest Service), Tod Ramsfield (NRCan-Canadian Forest Service)

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 watershed management and water quality for rural and urban water users and consumers.		
	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 Presentations:			
	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 Iguazu 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), Dominique Lachenal (Grenoble INP-Pagora, France) & Jingxin Wang (West Virginia University, USA)

Moderator: Jianchun Jiang

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.

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 Institute for Environmental and Agricultural Science and Research, France), Tim Payn (Scion, New Zealand), João Palma (Technical University of Lisbon, Portugal)	
Moderator:	Jean-Michel Carnus	
Description:	This session will examine the growing importance of planted forests and the potential for intensified production without adversely affecting the wider environment, and will focus on integrated or systems approaches recognizing the importance of interactions of 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 Presentations:

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 Hardy (Murdoch University, Australia) & Paolo Gonthier (University of Turin)**Moderators:** Matteo Garbelotto & Giles Hardy**Description:** This session will explore the social impacts related to the loss of native forests to exotic insects and disease.

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 Institute for Environmental and Agricultural Science and Research-URZF, France)

Moderator: Christelle Robinet

Description: The session is focused on abiotic and biotic drivers of changes in species 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 Divisional representatives & the International Forestry Students Association (IFSA)

Moderators: Jakob Horl (IFSA) & James Johnson (Oregon State University, USA)

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 policy, social sciences, and forest economics.

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

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Daily Scientific Program
THURSDAY 9 OCTOBER

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 Sciences, Austria) & Perry Brown (University 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 Beardsley'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

SP-10 Resilience Of Forest Ecosystem Services To Changing Disturbance Regimes

Room: 155 F

Organizers: Rupert Seidl (University of Natural Resources and Life Sciences, Austria) & Tom Spies (U.S. Forest Service)

Moderators: Rupert Seidl & Tom Spies

Description: The session will address questions of how forest disturbance regimes might change in the future, how vulnerable ecosystem services are to such changes, and how ecosystem management can foster resilience to changing climate and disturbance regimes.

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

SP-11 Advances In Large-Scale Forest Inventories To Support The Monitoring And The Assessment Of Forest Biodiversity And Ecosystem Services

Room: 155 A-C

Organizers: Anna Barbati (University of Tuscia, Italy), Piermaria Corona (Consiglio per la Ricerca e la sperimentazione in Agricoltura, Arezzo, Italy), Frédéric Gosselin (Irstea, France) & Ronald E. McRoberts (U.S. Forest Service)

Moderators: Anna Barbati

Description: This session will explore recent progress in the development of indicators for monitoring the effects of forest management activities on ecosystem services provision, and cutting-edge inventory methods for the spatial estimation of biodiversity and ecosystem service indicators on multiple spatial scales.

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 Policy Learning For Multi-Level Governance

Room: 251 A-C

Organizers: Daniela Kleinschmit (Swedish University of Agricultural Sciences) & Ben Cashore (Yale University, 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 Recreation And Tourism, And Rural Development

Room:	151 A		
Organizers:	Tuija Sievanen (Finnish Forest Research Institute), Ellyn K. Damayanti (Bogor Agricultural University, Indonesia) & Taiichi Ito (University of Tsukuba, Japan)		
Moderators:	Ellyn K. Damayanti & Taiichi Ito		
Description:	This session deals with research, planning, and management of protected and recreational areas in rural communities, highlighting research on integration of local communities with the parks to enhance local community and visitor benefits, and conflict resolution.		
	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 D		
Organizers:	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 (Wageningen University, Netherlands), Bimbika Sijapati (CIFOR, Indonesia)

Moderators: Han van Dijk & Purabi Bose

Description: This session examines the implications of forest and land tenure reforms (in Asia, Africa and Latin America) with emphasis on local institutions, governance, livelihoods, and gender dynamics.

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 Presentations:

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 Saproxyllic 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	Kenya
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 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.		
	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 of Agricultural Sciences) & Woodam Chung (Oregon State University, USA)		
Moderators:	Nate Anderson		
Description:	This session will cover a wide range of forest biomass supply chain studies from around the world; topics include feedstock production, operations research, conversion technologies, logistics management, economics, and carbon balance associated with forest biomass 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 Bamboo And Rattan Resources

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 conservation and sustainable utilization 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 Forest Products Research

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 and biotechnology in the development 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 Wisconsin, USA)

Moderators: Barbara Bentz & Ken Raffa

Description: This session will compare defense mechanisms utilized by various host tree species across multiple insect feeding guilds, forest types, and environmental conditions.

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 (124A) Impact And Monitoring Of Forest Pests And Pathogens In A Changing World

Room:	150 D	
Organizers:	Maartje J. Klapwijk, Johanna Boberg (Swedish University of Agricultural Sciences) & Jolanda Roux (FABI/University of Pretoria, South Africa)	
Moderators:	Jolanda Roux	
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.	
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 Capital	David Bray	United 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 around the world including new approaches to monitoring, and qualitative observations of new activities, places and contexts.

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 Presentations:		
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 Freiburg, Germany), Christoph Kleinn & Peter-Tobias Stoll (University of Goettingen, Germany)

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 (University of Oregon, USA) & Metodi Sotirov (University of Freiburg, Germany)	
Moderators:	Cassandra Moseley	
Description:	This session will assess environmental conflicts in forest policy and responses by forest policy makers (e.g., policies and governance arrangements and their effects) with an emphasis on OECD countries.	
	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 Society 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 session includes highly inspirational research examples from six continents.	
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 Presentations:

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 reserve designs, effects of forest and riparian buffer management, climate envelope models, and emerging genetic tools to gauge species occurrence (e-DNA) and habitat connectivity across forest landscapes.	
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 assessed field and observation data from representative mountain regions on soil, climatic, and ecologic conditions in response to climate change, focusing on opportunities and barriers to adaptation.	
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 Ippc 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, Austria), Frits G. Mohren (University of Wageningen, the Netherlands) & Jean-Luc Peyron (Ecofor, France)	
Moderators:	Hubert Hasenauer	
Description:	The session will discuss forest management strategies in mitigating potential climate change effects, including adaptation options, carbon sequestration issues, fossil fuel substitution potentials, and life cycle assessment strategies.	
	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 Isohydic Or Anisohydic 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 coastal forest ecosystems, and their importance as habitats for marine and estuarine biodiversity and provision other ecosystem services.		
	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 And Biomass Heating

Room:	250 A		
Organizers:	Nate Anderson (U.S. Forest Service), Gustaf Egnel (Swedish University of Agricultural Sciences) & Woodam Chung (Oregon State University, USA)		
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 Häyriinen	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

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 conservation and sustainable utilization 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 management tool for air pollutant loading and the development of science-based air quality policy that protects ecosystem health.		
	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 World

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 Three Physokermes Species	Olle Anderbrant	Sweden
Global Climate Change And Gall Rust Disease Epidemic On Falcatoria 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 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

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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

Room: Ballroom

Session Chair: Daniela Kleinschmidt

Description: 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. 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 for Forests, Natural Hazards and Landscape, Austria), Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute), & JP Skovsgaard (Swedish University of Agricultural Sciences)

Moderators: Bryan Finegan

Description: The session will explore the current state of knowledge regarding the role of taxonomic and functional diversity in the provision of various forest ecosystem services, the trade-offs often required for successful multi-functional management of forests for different ecosystem services, and associated management and policy challenges including governance at the territorial scale.

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 Federal Institute of Technology in Zurich, Switzerland)

Moderators: Woodam Chung

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 sector since the 1980s, followed by responses given by four IUFRO Past-Presidents (1990-2010) showing how the research community responded to the challenges during their time in office.

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

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 University of Agricultural Sciences), Gary Kerr (UK Forestry Commission), Jessica Leahy (University of Maine, USA) & Christoph Hartebrodt (Forest Research Institute Baden-Württemberg, Germany)		
Moderators:	Christoph Hartebrodt		
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.		
	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 well as conflict situations arising in forest, wildlife and recreation management.

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 under Pressure: Local Responses to Global Issues”, focusing on ‘prerequisite conditions’ that foster progress towards sustainable forest management and forest-related sustainable development.

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 Siteo	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, Germany)

Moderators: Michael Böcher & Georg Winkel

Description: This session will focus on the interactions between scientific research and forest policy making and practices, including problems and prospects for scientific knowledge transfer in forest policy and assessment of long term trends of the science-policy interface.

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 Brienese	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 Smith (NRCan- Canadian Wood Fibre Centre) & Alejandra Real (National Forestry Corporation, Chile)

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 Presentations:		
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
Managing Knowledge In A Research Organisation: The Case Of Kenya Forestry Research Institute	Sheila Mbiru	Kenya
Forest Models Dissemination And Knowledge Transfer On Cork Oak Based Ecosystems: Bridging The Gap Between Research And Practice	João HN Palma	Portugal
IUFRO And Global Forest Decimal Classification - Status And Future	Jarmo Saarikko	Finland
A Role For Research In Supporting Small-Scale Emerging Tree Growers In South Africa	Sally Upfold	South Africa

// 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 designed and applied for a sustained provision of ecosystem services under climate change, including case studies and overviews on models, methods, techniques and frameworks.	
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 Presentations:		
DSS Optimal - A Case Study From 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 State 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 Presentations:		
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 (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.

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:	Ian 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:	Ian 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	Ian 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 Presentations:

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 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.

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 simultaneous pressures of land use change, trade globalization and climate change.

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) & Xiaohua (Adam) Wei (University of British Columbia, Canada)	
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	Pinar 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 Atmospheric Administration, USA) & Chris Frissell (University of Montana, USA)	
Moderators:	Kathleen Dwire	
Description:	This session will focus on innovative approaches to restoration and maintenance of biological diversity and essential ecosystem services in riparian forests.	
	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 North American Indigenous Peoples' Experience	Marla R. Emery	United States
Forest Conservation And NTFPs Utilization In Southwest Ethiopia: An Overview Of Actors And Their Interactions	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 And Non Timber Value-Chain Projects On Fundamental Human Needs	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 Coccuoides And Schinziophyton Rautanenii In Rundu Rural West Constituency, Kavango Region, Namibia	Selma Ndemutilla Elago	Namibia
Analysis Of Non-Timber Forest Products Activities And Income Among Rural Households In Nigeria	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 Economy In Xing'An Mountains Forest Area	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, Australia), Toni Withers (Scion, New Zealand) & Helen Nahrung (University of the Sunshine Coast, Australia)**Moderators:** Simon Lawson & Toni Withers**Description:** This session focuses on biological control of eucalypt pests worldwide, including updates on biocontrol programs for long-established pests, recent invasions, and the selection of effective control agents..

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 International Cultivation Of Walnut For Nut And Timber Production	Steven Seybold	United States
Co-Evolution Of The Siricid-Amylostereum Mutualism On Conifers	Bernard Slippers	South 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 climate change and air pollution 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 Presentations:

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 Presentations:

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 related to the economic and accounting aspects of ecosystem services, including the effects on management decisions.

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 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.

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 Presentations:

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 Koopassia Malaccensis In Malaysia	Chai Ting Lee	Malaysia

Genetic Structuring And Triploidy In North American Aspen (Populus Tremuloides)	Karen Mock	United States
Timber 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 Ramanantoandro	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 University, USA), David Paré (NRCan-Canadian Forest Service) & Peter Clinton (Scion, New Zealand)	
Moderators:	David Paré	
Description:	This session will present approaches to analyzing uncertainty in forest measurements and give examples of applications of uncertainty analysis in above- and below ground estimates of forest biomass, carbon, and nutrient pools and fluxes, and other ecosystem attributes.	
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 Landscape, Austria)	
Moderators:	Robert Jandl	
Description:	This session will explore the challenge of evaluating changes in total soil carbon stocks and its components in planted and natural forests through several case studies worldwide.	
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 Ashraf 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 emissions from intact and converted wetland forests and associated land uses, ecosystem C dynamics modeling tools, and roles of tropical wetlands in climate change adaptation and mitigation 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 arid or semi-arid areas with presentations of recent research, operational experiences and lessons learned on rehabilitation of degraded lands and combating desertification.	
	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 debris flows), and one anthropogenic (clear-cut logging) on aquatic biota and the relationship between disturbance severity and recovery period and possible recovery trajectories.	
	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), Kyu-Suk Kang (Korea Forest Research Institute, Republic of Korea) & Marco Marchetti (Italian Academy of Forest Sciences)	
Moderators:	Xiping Wang & Jianxiong Lu	
Description:	This session will focus on assessment of wood and fiber properties of forest plantations for optimized wood utilization, development of geo-referenced wood property databases for resource management, and selection of superior clones in tree breeding operations.	
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	Robert Kozak	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 Lähinen	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 Presentations:

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) 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: 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 Perspectives - 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 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 University of Agricultural Sciences), Ned Klopfenstein (U.S. Forest Service) & Steve Woodward (University of Aberdeen, UK)	
Moderators:	Moderators: Ned Klopfenstein & Phil Cannon	
Description:	Description: This session will highlight the emerging forest pathogens <i>Puccinia psidii</i> and <i>Hymenoscyphus pseudoalbidus</i> , 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 <i>Hymenoscyphus Pseudoalbidus</i>	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 <i>Puccinia Psidii</i> On Hawaii's Ohia (<i>Metrosideros Polymorpha</i>).	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: 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.

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	United States
Intercontinental Ecological Comparisons As A Global Tactic For Managing Invasives	Flora Krivak-Tetley	United States
Patch Size For Sirex Noctilio 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

SP-18 Stemming Invasions Of Forest Insects And Pathogens: Research Supporting Pathway Risk Management And Phytosanitary Policy

Room: 155 F

Organizers: Andrew Liebhold (U.S. Forest Service) & Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute)

Moderators: 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 sociopolitical constraints on establishing co-management of public lands worldwide and the potential biophysical benefits from different management approaches.

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

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 applications for supporting the collection, management, storage and updating of enterprise information and geospatial data for retrieval and access by researchers, land managers, and public end users.		
	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 Offsets: 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 Sécurité 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:

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****Room:** 151 A**Organizers:** Peter Akong Minang & Elizabeth Kahurani (World Agroforestry Centre, Kenya)**Moderators:** 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 Modeling 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 Eucalyptus Globulus In Portugal	Margarida Tomé	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 Research, UK), Ulf Johannson & Bjorn Hanell (Swedish University of Agricultural Sciences)	
Moderators:	Phil Comeau	
Description:	This session will include discussion of the potential impacts of climate change on the distribution, growth and dynamics of natural and planted spruce forests and silvicultural, policy and planning options that may be available for sustainable management of spruce forests.	
Environmental Control Of Growth Variation In Norway Spruce In Finland	Harri Mäkinen	Finland
Geographic Patterns Of Genetic Variation In White Spruce (<i>Picea Glauca</i>): Developing Breeding And Deployment Strategies Under Climate Change	Laura Gray	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 (<i>Picea Abies</i>)	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 British Columbia, Canada) & Ferhat Gokbulak (Istanbul University, Turkey)	
Moderators:	Yusuf Serengil	
Description:	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) Impacts Of Forest Roads On Water Resources And Aquatic Habitat

Room: 150 A

Organizers: Charles Luce (U.S. Forest Service) & Artemio Cerdà (University of València, Spain)

Moderators: Charles Luce & Carlos E. Ramos Scharrón (University of Texas, USA)

Description: This session reviews the latest science on runoff generation, surface erosion, mass wasting and gully formation, sediment delivery, mitigation treatment effectiveness, and how these affect aquatic habitat.

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 Presentations:

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

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: Birger Solberg

Description: This session will explore the strengths and weaknesses of using forest sector models in policy analyses, recent methodological improvements and pending needs in forest sector modelling, and the scope for improvement in the interface between policy analyses and forest sector modeling.

A Long Term Analysis Of The Potential Of Swedish Forests To Satisfy Sector Demand	Ola Eriksson	Sweden
Future Of The European Forest-Based Sector: Combining Forest Sector Models With Foresight Analysis	Lauri Hetemaki	Finland
The Linkage Between Environmental Policies And International Trade In Pulp And Paper Industry	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.

Assessing Wood Quality And Developing Markets For Landowners Growing High-Value Native Hardwoods In Hawaii	James Friday	United States
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 Tropical Dry Forests In Colombia	Angela Cristina Paredes Alvarado	Germany

// FOREST HEALTH IN A CHANGING WORLD

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

Room: 151 E

Organizers: 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, and land use change can influence forest insect abundance via effects on trophic interactions.

On How To Study The Effects Of Climate Change On Trophic Interactions: A Holistic Approach	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 (Goniapterus 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 University)

Moderators: Kevin Potter

Description: This session will explore indicators of forest health trends from regional to national scales that are useful for monitoring change across the landscape.

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. Forest 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 risk management and phytosanitary policy aimed at reducing the risk of pest and disease introduction associated with international trade.	
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 Presentations:		
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

NOTES

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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	Ioryisa 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 (<i>Acer pseudoplatanus</i> 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 <i>Euterpe edulis</i> 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 (<i>pinus culminicola</i>) populations in North Mexico	Javier Jimenez	Mexico	1188
D1	024	Study on seeding regeneration potential of Taiwan Beech (<i>Fagus hayatae</i>) 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 <i>Calliandra calothyrsus</i> and <i>Antidesma bunius</i> 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 (<i>Cordia alliodora</i> 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 <i>Pericopsis elata</i> '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	<i>Steniscadia poliophaea</i> (Noctuidae) is a major seedling herbivore of big-leaf mahogany trees in Amazonian forests	Chris Free	United States	2145
D1	042	<i>Cedrela montana</i> 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 <i>Khaya grandifoliola</i> 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 <i>Shorea leprosula</i> 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 Hjalten	Sweden	3026
D1	058	How can <i>Macrotermes</i> 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 <i>Abies holophylla</i> seedlings under different nitrogen fertilization regime	Yuan Chai	China	1830
D1	060	Lateral root distribution of <i>Eucalyptus camaldulensis</i> and <i>Eucalyptus pellita</i> 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
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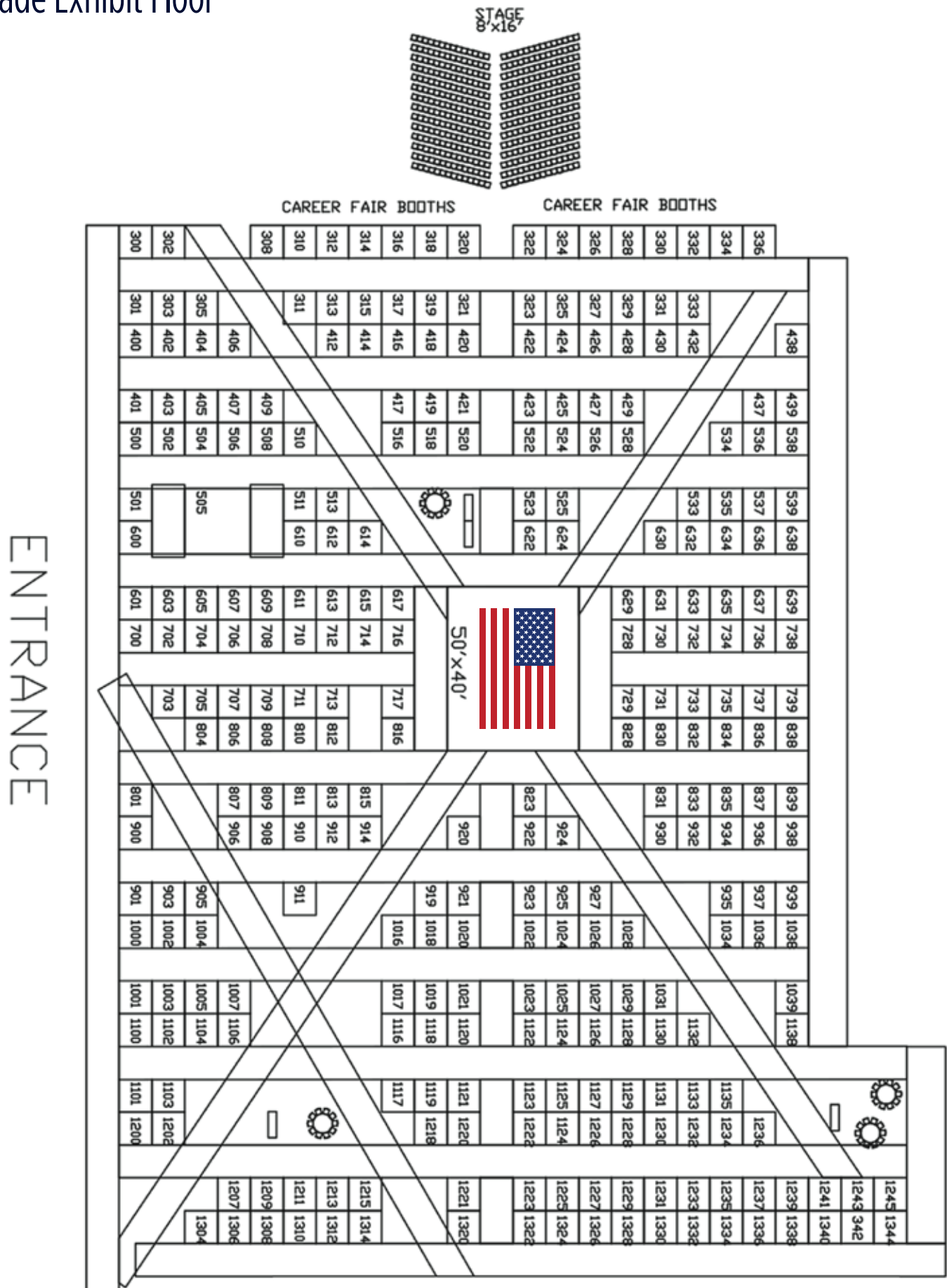
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Chinese Academy of Forestry is a comprehensive research institution that provides scientific and technical supports for the overall forestry development situation and key forestry programs.

Colorado State Forest Service**Booth 108**

5060 Campus Delivery
Ft. Collins, Colorado 80523
United States

970-491-7293
csfs.colostate.edu

The mission of the Colorado State Forest Service is to achieve stewardship of Colorado's diverse forest environments for the benefit of present and future generations.

Construction Safety Products**Booth 414**

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www.cspforestry.com

Construction Safety is an industry leader as a stocking supplier of forestry supplies at a competitive price. We ship same day in most cases.

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D

D.R. Systems Inc.**Booth 1117**

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Decagon Devices Inc.**Booth 501**

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Decagon Devices, Inc. manufactures environmental sensors. Whether you're measuring canopy LAI, stomatal conductance, microclimate conditions or soil water we have instruments for you.

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E

Eagle Digital Imaging Inc. Booth 914

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Vertically integrated solutions provider of remote sensing data and analysis services. Forestry services include acquisition of digital color, CIR and stereo images in resolutions from 1 inch to 2 foot plus a wide range of image based stand analyses including competing vegetation maps and trees per acre.

ECI - Environmental Consultants Inc. Booth 102

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United States

608-877-1170
www.eci-consulting.com

ECI & Western ECI is a provider of vegetation management consulting services to the national utility companies. ECI's staff has professionals with expertise in arboriculture, forestry, horticulture, biology, and related areas. Our services include program analysis and planning, research, professional services, and software systems.

Electronic Data Solutions Booth 801

154 1st Ave W
PO Box 31
Jerome, Idaho 83338
United States

208-324-8006
www.elecddata.com

Elecddata provides geospatial data collection solutions for a variety of forestry and natural resources applications including log scaling, timber cruising, vegetation studies, and inventory.

Elsevier BV Booth 712

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Amsterdam 1043NX
Netherlands

+31-20-485-3003
www.elsevier.com

Esri Booth(s) 813, 912, 811, 910, 809, 908, 807, 906, 900

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United States

909-793-2853
www.esri.com

Esri is a GIS software company that helps foresters and land managers meet the needs of their forests, the demands of society, and the pressures of economic efficiency. GIS technology profoundly and positively impacts the way land managers, timber managers, and more manage timber resources. Land managers increasingly turn to GIS for analytic and visualization tools for analyzing complex situations and make better-informed decisions. GIS is becoming the foundation for new decision support tools used in all business processes of integrated forest management.

F

F4 Tech Booth(s) 812, 810

3059 Highland Oaks Terrace
Tallahassee, Florida 32301
United States

850-309-3940
www.thinkf4.com

Founded in 1998 in Tallahassee, FL, F4 Tech is a worldwide leader in forest inventory technology. It is pioneering best practices, technology, education and outreach in the forest industry, www.thinkF4.com.

Faculty of Forestry, University of British Columbia Booth 629

2005-2424 Main Mall
University of British Columbia
Vancouver, British Columbia V6T 1Z4
United States

604-822-6316
www.forestry.ubc.ca

Finite Carbon Booth 1211

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Williamsport, Pennsylvania 17701
United States

570-321-9090
www.finitecarbon.com

America's leading developer of forest carbon offsets. Combining unparalleled project development experience with extensive carbon market knowledge, our in-house team of forest carbon experts offers a single-source solution for creating and monetizing carbon offsets and the most comprehensive forest carbon project development and commercialization service in the US.

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Hinton, Alberta T7V1X6
Canada

780-865-8329
www.foothillsri.ca

fRI is a unique community of partners joined by a common concern for the welfare of the land, its resources, and the people who value and use them. fRI connects managers and researchers to effectively collaborate in developing innovative science for land and resource management. fRI also reports research results to its partners, government agencies and the public.

Forest Biometrics Research Institute**Booth 1007**

4033 SW Canyon Road
Portland, Oregon 97221
United States

406-649-0040
www.forestbiometrics.com

The Forest Biometrics Research Institute (FBRI) is a non-profit forestry research and support services corporation specializing in inventory, growth, silviculture and sustained yield planning. FBRI provides methods, software, tutorials and workshop for managing a working forest. FBRI maintains one of the largest and most diverse research databases behind its regional libraries for species-specific volume, site, growth and mortality parameters. Over 80 organizations (private, tribal, public) use FBRI software and methods to manage in excess of 8 million acres of working forests.

Forest History Society**Booth 703**

701 William Vickers Ave
Durham, NC 27701
United States

919-682-9319
www.foresthistory.org

The Forest History Society preserves and helps people use the documents of forest and conservation history. Seek out information for your presentations, reports, land management, and genealogy.

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Thetford Center, Vermont 05075
United States

802-785-4307
www.forestmetrix.com

Forest Metrix is a comprehensive timber inventory, analysis, and reporting platform for iPads, iPhones, and Windows 8 devices. The product is custom built for every user.

Forest Practices Board**Booth 630**

PO Box 9905 Stn Prov Govt
Victoria, British Columbia V8W 9R1
Canada

250-213-4700
<http://www.fpb.gov.bc.ca/>

The BC Forest Practices Board is an arms-length agency providing independent oversight of industry and government forest practices and legislation in British Columbia.

Forest Stewardship Council US**Booth 425**

212 Third Avenue North, Suite 445
Minneapolis, Minnesota 55401
United States

612-353-4511
www.fsc.org

The Forest Stewardship Council mission is to promote environmentally sound, socially beneficial and economically prosperous management of the world's forests. Our vision is that we can meet our current needs for forest products without compromising the health of the world's forests for future generations.

Foresters' Fund & Science Fund**Booth(s) 321, 420, 319, 418, 317, 416**

5400 Grosvenor Lane
Bethesda, Maryland 20814
United States

Foresters' Fund assists local SAF units in promoting education to enhance public understanding of the role of professional foresters in forest resource management, conducting forest policy activities, and strengthening state societies, divisions, and chapters in achieving the mission of the Society.

Forestry and Forest Products Research Institute/REDD**Booth 1104**

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Japan

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www.ffpri.affrc.go.jp/en

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G**Geographic Business Solutions****Booth 815**

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Geographic Business Solutions (GBS) is an Esri Gold Partner specializing in the custom development of Esri solutions for desktop, sever, ArcGIS Online and mobile. GBS has developed CHPS - Cable Harvest Planning Solution - an ArcGIS for Desktop extension for cable yarding payload analysis.

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H

Haglof Sweden Booth(s) 919, 1016

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Host Country: United States Forests Booth 1500

Consortium of US Forest Stakeholders

The Host Country booth is a multi-stakeholder effort intended to share information about US Forests. Each break and lunch will focus on a different theme - come by often to learn about different aspects of our research and management activities.

Hub International Insurance Brokers Booth 633

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Burnaby, BC V5C 0G5
Canada Insurance brokers. 604-269-1888
www.hubprofessional.com

International Forestry Students' Association Booth(s) 311, 313, 315

Tennenbacherstrasse 4
Freiburg im, Breisgau D-79 106
Germany 604-442-2044
www.ifsa.net

IFSA is a student-run global network for students in forest sciences with around 3000 members in 75 member associations in over 54 countries.

International Tropical Timber Organization (ITTO) Booth 613

International Organizations Center,
5th floor Pacifico Yokohama
1-1-1 Minato-Mirai Nishi-Ku
Yokohama, Kanagawa
Japan +81-45-223-1110
www.itto.int

Our main goal is to promote sustainable forest management throughout the tropics, and we do this by financing projects related to sustainable forest management in areas such as reforestation, forest industry, economics, markets and statistics, as well as in other thematic areas such as mitigation against climate change, environmental services, community forest management, etc.

International Wood Culture Society Booth 528

2-40-1 Kurokami
Chuo-ku +81-96-342-2653
Kunamoto 8608555 www.iwcs.com
Japan

IWCS is a non-profit, non-governmental, international network of wood enthusiasts, dedicated to the research, education and promotion of wood culture.

International Wood Culture Society Booth(s) 429, 526

2549 Eastbluff Dr. #307
Newport Beach, California 92660 714-785-5518
United States www.iwcs.com

A non-profit international organization dedicated to the research, education and promotion of wood culture and promotion of World Wood Day.

Intertribal Timber Council Booth 924

1112 NE 21st Avenue
Suite 4 503-282-4296
Portland, Oregon 97232 www.itcnet.org
United States

Established in 1976, the Intertribal Timber Council is a non-profit nation-wide consortium of over 60 tribes, dedicated to improving Indian forest and natural resources.

IUFRO Regional Partner Networks (APAFRI, CATIE, FORNESSA, NEAFF) Booth 611**Upcoming IUFRO Events Booth(s) 1026, 1024, 1022****Jiffy Booth 1034**

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www.junipersys.com

K**Korea Forest Research Institute****Booth(s) 925, 923**

57 Heogiro, Dongdaemun-gu
Seoul 130-712
Republic of Korea

+82-2-961-2573
www.kfri.go.kr

Korea Forest Research Institute(KFRI) is a national forest research institute aimed at increasing foresters incomes, promoting green welfare and satisfying all the Korean people through the benefits of forest. Over the years, KFRI has played a significant role in developing forest science in Korea. In particular, in 2012, we celebrated our 90th anniversary with a brand-new vision of 'With the review of the past, we can solve the problems of the present and prepare for the future', reaffirming our commitment and preparing for another leap forward.

Korea Forest Service**Booth 921**

Government Complex-Daejeon
Bldg.1
189 Cheongsa-ro, Seo-gu
Daejeon 302-701
Republic of Korea

+82-42-481-4127
www.wildfire2015.kr
(www.forest.go.kr)

The Korea Forest Service(KFS) is one of central administrative organizations of the Korean government in charge of managing forest lands. It is responsible to conserve healthy forest ecosystem and to create rich and sustainable forests. With a prompt and efficient prevention-control-restoration system of wildland fire management, KFS is designated as the host organization of the 6th International Wildland Fire Conference in 2015.

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Canada

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Michigan Tech offers degrees in forestry, ecology, and biotechnology. MS and PhDs are offered alongside professional degrees focused on GIS, policy, business, and engineering.	

Minnesota Department of Natural Resources	Booth 122
1201 E Highway 2 Grand Rapids, MN 55744 United States	218-999-7839 www.dnr.state.mn.us

Mississippi State University	Booth 421
Mailstop 9681 Mississippi State Mississippi 39762 United States	662-325-4611 www.cfr.msstate.edu
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Montreal Process	Booth 716
1400 Independence Avenue, SW Washington, District of Columbia 20050 United States	202-205-1521 www.montrealprocess.org
The Montreal Process Working Group was formed in 1994 as a bold, intergovernmental response to the pressing need for sustainable forest management. Member countries continue to make a voluntary commitment to work alongside each other to further the sustainable management of their forests and to create a pathway for collaboration and capacity building.	

N

NASA Science Mission Directorate	Booth(s) 507, 606, 505, 604
1 NASA-Ames Research Center Moffett Field, California 94035-0001 United States	301-614-5560 science.nasa.gov/earth-science/
NASA conducts and sponsors research / applications on land surfaces, the biosphere, solid Earth, atmosphere, and oceans. Share in the spirit of Earth exploration and understanding through NASA's eyes.	

National Association of State Foresters	Booth 1018
444 N Capitol St NW Suite 540 Washington, District of Columbia 20001 United States	202-624-5417 www.stateforesters.org
The National Association of State Foresters (NASF) is composed of the directors of state and territorial forestry agencies and the District of Columbia. NASF seeks to advance sustainable forestry, conservation, and protection of forest lands and their associated resources. Learn more at www.stateforesters.org .	

National Museum of Forest Service History	Booth 615
PO Box 2772 Missoula, Montana 58906 United States	406-51-6374 www.nmfs-history.net
Preserving the legacy of Forest & Grassland Conservation - Understanding the People and Events that have shaped our history and culture.	

National Wild Turkey Federation	Booth 1004
770 Augusta Road Edgefield, South Carolina 29824 United States	803-637-3106 www.nwtf.org
The NWTF – a national nonprofit organization – is the leader in upland wildlife habitat conservation in North America. The NWTF is dedicated to the conservation of the wild turkey and the preservation of our hunting heritage.	

Natural Resources Canada	Booth 1023
580 Booth Street, 15th Floor Ottawa, Ontario K1A 0E4 Canada	613-947-4556 www.nrcan-mcan.gc.ca
Federal Government	

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Nelson Paint Company	Booth 920
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New Forests: Forest Carbon Partners**Booth 1106**

275 Battery Street
Suite 510
San Francisco, California 94111
United States

415-321-3304
www.forestcarbonpartners.com

Forest Carbon Partners, an investment fund managed by New Forests, finances and develops forest carbon offset projects for the California carbon market.

NFPA**Booth 713**

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United States

617-984-7444
www.nfpa.org

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North Carolina State University**Booth 614**

Department of Forestry and
Environmental Resources
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United States

919-513-7368
cnr.ncsu.edu/fer

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Northern Arizona University, School of Forestry**Booth 528**

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540-737-6458
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Founded in 1906, OSU's College of Forestry is a world-renowned teaching and research center, offering a complete range of graduate and undergraduate degrees sharply focused on forest landscapes.

P**Peace Corps****Booth 1322**

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202-692-1035
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Peace Corps service is a life-defining leadership experience. Volunteers serve in over 70 countries and live, learn, and work with a community overseas for 27 months. They become leaders in grassroots efforts to protect and conserve the environment, engaging in projects that establish forest conservation plans and help promote alternative energy practices, integrate environmental curricula in schools, and promote alternative energy practices. They also collaborate with various organizations to promote environmental awareness activities such as wastewater management, recycling, environmental youth clubs, and park management.

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United States
765-494-3631
www.ag.purdue.edu/fnr

Purdue University Department of Forestry and Natural Resources and the Hardwood Tree Improvement and Regeneration Center, in partnership with the USDA Forest Service, Northern Research Station.

R

RECOFTC - The Center for People and Forests Booth 522

P.O. Box 1111, Kasetsart Post Office
Bangkok 10903
Thailand
662-940-5700
www.recoftc.org

RECOFTC – The Center for People and Forests is an international non-profit capacity development organization with a vision of local communities actively managing forests in Asia and the Pacific to ensure optimal social, economic, and environmental benefits.

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S

Simosol Oy Booth 717

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Simosol Oy is a privately held company from Finland specializing in decision support software (DSS) development for forest resource management. The client base of the company consists of forest industry companies and public sector forestry organizations in Finland, and forest consulting companies delivering services internationally.

Society of American Foresters**Booth(s) 305, 404, 303, 402**5400 Grosvenor Lane
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United States866-897-8720 ext. 100
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Thriving forests. Essential resources. Strong communities. We set the standard in forest management, bringing science, best practice, and the best people together to actively shape the future of the profession. A national scientific and educational organization, SAF represents the forestry and natural resources profession in the United States. Founded in 1900 by Gifford Pinchot, it is the largest professional society for forestry professionals in the world.

Soil Science Society of America**Booth 1218**5585 Guilford Road
Madison, Wisconsin 53711
United States608-273-8080
www.soils.org

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www.sfipprogram.org

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Swedish University of Agricultural Sciences**Booth 513**Skogsmarksgrand
Umea, Vasterbotten S90183
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SLU develops the understanding and sustainable use and management of biological natural resources. This is achieved by research, education and environmental monitoring and assessment, in collaboration with the surrounding community.

T

Tajfun USA**Booth 711**731 James St Suite 225
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Dominion Centre
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The Davey Tree Co.**Booth 118**

1500 N Mantua St
Kent, Ohio 44240
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330-310-3413
www.davey.com

The Davey Tree Expert Company is the Nation's oldest and largest full service Tree Care Company with over 7500 employees and 120 offices throughout North America, starting in 1880. Employee-owned and having four distinctive service lines; Utility Line Clearance, Davey Resource Group, Residential/Commercial Tree Care and Commercial Grounds Maintenance. Davey needs career minded individuals who enjoy working outdoors utilizing the latest technology.

The Finnish Forest Research Institute (Metla)**Booth 510**

PO Box 18
Vantaa, Uusimaa FI-01301
Finland

+358-50-391-2270
www.metla.fi

The Finnish Forest Research Institute (Metla) is a public research organization established in 1917 to develop solutions to the challenges posed by forests and forestry in one of the most forested countries of the world.

Trimble Navigation Ltd.**Booth(s) 911, 1010**

345 SW Avery Ave
Corvallis, Oregon 97333
United States

541-768-2679
www.trimble.com/forestry

Trimble applies technology to make field and mobile workers in businesses and government significantly more productive, providing solutions for surveying, construction, agriculture, fleet and asset management, public safety and mapping. Trimble uses wireless technologies to deliver the solution to the user and to ensure a tight coupling of the field and the back office. Founded in 1978, based in Sunnyvale, Calif.

U**Union of Concerned Scientists****Booth 1213**

1800 K St NW
Suite 800
Washington, District of Columbia 20006
United States

571-354-9654
www.ucsusa.org

UCS is the leading science-based nonprofit working for a healthy environment and a safer world.

University of Arkansas at Monticello**Booth 1138**

PO Box 3468
Monticello, Arkansas 71656
United States

870-460-1149
www.uamont.edu

University of Idaho**Booth(s) 1209, 1207**

Forest, Rangeland, and Fire Sciences
875 Perimeter Drive MS 1133
Moscow, Idaho 83844-1133
United States

208-885-2737
www.uidaho.edu/cnr/frfs

Preparing leaders through hands-on training and relevant research experience is where the Department of Forest, Rangeland, and Fire Sciences excels. Our faculty is invested in national and international research, benefiting students at all levels. Our forest nursery, experimental forest, wilderness research station and other facilities provide the tools and experiences our students and faculty need to be the best in the west.

University of Maine**Booth 533**

School of Forest Resources
5755 Nutting Hall, Rm. 201
Orono, Maine 04469-5755
United States

207-581-2841
www.forest.umaine.edu

We provide undergraduate and graduate educational experiences and generate new knowledge to improve the use of forest resources to sustainably meet societal needs.

University of Montana**Booth 1222**

32 Campus Drive
Missoula, MT 59812

406-243-6650
www.umontana.edu

University of Washington**Booth 423**

217 Anderson Hall
UW Mailbox 352100
Seattle, Washington 98195
United States

206-543-7081
www.cfr.washington.edu

US Department of Agriculture - Research, Education and Economics**Booth(s) 407, 506, 405, 504**

1400 Independence Ave SW
Washington, District of Columbia 20250
United States

202-720-1592
www.ree.usda.gov

USDA Forest Service - Remote Sensing Applications Center**Booth 830**

2222 W 2300 S
Salt Lake City, Utah 84119
United States

801-975-3826
www.fs.fed.us

The Remote Sensing Applications Center (RSAC) provides national remote sensing assistance to the USDA Forest Service units toward improved monitoring and mapping of natural resources.

**USDA Forest Service
Research & Development****Booth 835**1601 N Kent St 400 RPC Rosslyn
Arlington, Virginia 22209
United States703-605-5178
www.fs.fed.us/research

The USFS is the Congress host and has a mission is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

**USDA Forest Service -
National Library****Booth 1017**National Forest Service Library
240 W Prospect Rd
Fort Collins, Colorado 80526
United States970-498-1310
usfs.vtls.com/cgi-bin/usfs/chameleon

The National Forest Service Library provides high quality scientific and technical information services to USDA Forest Service employees. The Library also provides research assistance for customers needing information from the USDA Forest Service. In addition to the main library, we have two specialty libraries providing technical assistance in forest products and tropical forestry.

**USDA Forest Service Forest
Inventory and Analysis****Booth 828**8831 Rymer Way
Owings, Maryland 20736
United Stateswww.fs.fed.us

The USFS is the Congress host and has a mission is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

**USDA Forest Service-
Forest Health Technology
Enterprise Team****Booth 831**2150 Centre Ave
Bldg. A Suite 331
Fort Collins, Colorado 80528
United States970-295-5840
www.fs.fed.us/foresthealth/technology

The Forest Health Technology Enterprise Team was created by the Deputy Chief for State and Private Forestry in February 1995 to develop and deliver forest health technology services to field personnel in public and private organizations in support of the Forest Service's land ethic, to "promote the sustainability of ecosystems by ensuring their health, diversity, and productivity."

**USDI Bureau of Land
Management****Booth(s) 301, 400**1849 C St. NW, Room 2134 LM
Washington, DC 20240
United States303-236-0681
www.blm.gov

BLM, under its multiple-use mandate, manages 245 million acres, or 40 percent of all land managed by the Federal government. Fifty-eight million acres are forests or woodlands.

**Utah Department of Natural
Resources****Booth(s) 1132,1031,
1130,1029,1128**1594 6 North Temple
Suite 3710
Salt Lake City, Utah 84114-5610
United States801-538-7326
www.utah.gov

The Utah Department of Natural Resources, and particularly the Division of Forestry, Fire & State Lands, welcomes all IUFRO attendees. Enjoy your stay in Utah!

**Utah State University
Quinney College of Natural
Resources****Booth 518**5230 Old Main Hill
Logan, Utah 84322-5230
United States435-797-4056
www.cnr.usu.edu**V****Virginia Tech****Booth 432**Dept. of Forest Resources & Env Cons
313 Cheatham Hall
Blacksburg, Virginia 24061
United States540-231-5483
www.vt.edu**W****Waveland Press, Inc.****Booth 705**4180 IL Route 83
Suite 101
Long Grove, Illinois 60047
United States847-634-0081
www.waveland.com

Waveland Press publishes reasonably priced undergraduate textbooks for a variety of courses in forestry, natural resources, and related subjects. Please visit www.waveland.com for a complete list of available titles. Stop by booth 705 to speak with our forestry editor about your classroom needs or textbook projects.

**Wood Education and
Resource Center****Booth 707**180 Canfield Rd
Morgantown, West Virginia 26505
United States304-285-1588
www.na.fs.fed.us/werc

We collaborate with States, other Federal agencies, tribes, landowners, and other partners to protect, conserve, and manage forests and community trees across the 20 Northeastern and Midwestern States and the District of Columbia. We provide leadership, technical support, sound science, and financial assistance to help ensure that our forests and trees continue to provide clean water, forest products, wildlife habitat, recreation, and other benefits for present and future generations.

West Virginia University**Booth 419**

322 Percival Hall
Morgantown, West Virginia 26506
United States

304-293-0049
www.wvu.edu

Western Aspen Alliance**Booth 714**

Utah State University
5230 Old Main Hill
Logan, Utah 84322
United States

www.western-aspen-alliance.org

The Western Aspen Alliance facilitates cooperative research and disseminates state-of-the-science aspen information to interested managers, researchers, the public, and other entities.

Western Forestry Leadership Coalition**Booth 1020**

2850 Youngfield, 4th Floor
Lakewood, Colorado 80215
United States

303-445-4365
www.wflcweb.org

The Western Forestry Leadership Coalition (WFLC) is a State and Federal government partnership. This partnership creates a clear voice on western forestry, to promote science-based forest management that serves the values of society and ensures the health and sustainability of western forests.

Weyerhaeuser Company**Booth 124**

PO Box 1060
810 Whittington Ave.
Hot Springs, AR 71902
United States

501-624-8192
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World Agroforestry Centre (ICRAF)**Booth(s) 1101, 1200**

PO Box 30677
UN Avenue
Nairobi, Kenya 00100 GPO
Kenya

+254-20-7224000
www.worldagroforestry.org

The World Agroforestry Centre (ICRAF) is one of the 15 Centres of the CGIAR Consortium, and is headquartered in Nairobi, Kenya. Our mission is to generate science-based knowledge about the diverse roles that trees play in agricultural landscapes, and to use its research to advance policies and practices, and their implementation that benefit the poor and the environment.

World Wood Day Foundation**Booth 1116**

2549 Eastbluff Dr. #307
Newport, California 92620
United States

www.worldwoodday.org

World Wood Day Foundation advocates and annually celebrates World Wood Day on March 21st to raise public awareness of wood as an eco-friendly material and encouraging academic research and responsible wood usage for a sustainable future.

Y

Yale School of Forestry & Environmental Studies**Booth 622**

195 Prospect St
New Haven, Connecticut 06511
United States

203-432-5983
www.yale.edu

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Section #7
CONNECT WITH US

Connect With US

We want to engage people from around the world and inform them on what is happening at #IUFRO2014 and we are enlisting you to help!

What can you do?

- Help create the discussion. Share content from the IUFRO2014 Blog with your networks and comment on the postings.
- On Facebook? Join the IUFRO2014 Facebook group and share our postings, and join in on the discussions.
- Are you a tweeter? Follow @iufro2014, tweet live from the Congress and use our hashtags!
- Taking photos? Add your photos to Flickr with the tag IUFRO2014 and join our Flickr group! Or, post them to our Facebook page - or tweet them to us.

When tweeting about the Congress, use the official hashtag - #IUFRO2014.

In addition, we recommend you use the following hashtags if you are tweeting about a specific theme.

- Forests for People - #Frst4Ppl
- Forest Biodiversity and Ecosystem Services -#FrstBioDiv
- Forests and Climate Change - #FrstCC
- Forest and Water Interactions - #FrstH2O
- Forest Biomass and Bioenergy - #FrstEnergy
- Forests and Forest Products for a Greener Future - #Frst4Future
- Forest Health in a Changing World- #FrstHealth

Congress Newsletter

Each day, the Congress will produce a newsletter with highlights from the previous day and previews of what is to come. Hard copies of the newsletter will be available on a limited basis in the morning refreshment break areas. The newsletter will also be available for download on the Congress website, using the Congress app, or by scanning the daily newsletter QR code.

Congress Survey

On Friday and Saturday of the Congress, volunteers will be seeking your input on the Congress. Each host seeks to improve upon attendee's experiences to ensure World Congresses are a great success. The survey will also be available for you to take using the Congress app, at any time.

Links



Congress Blog
<http://blog.iufro2014.org/>



Twitter
www.twitter.com/iufro2014



Facebook
www.facebook.com/iufro2014



Flickr
www.flickr.com/groups/iufro2014

Section #8
BLANK NOTES

NOTES

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NOTES

[illegible]

This image shows a full page of blank, lined paper. It features approximately 20 horizontal blue or grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings on the page.

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section #9
REFERENCE & SAF/CIF SCHEDULE

2014 SAF National Convention and CIF/IFC AGM & Conference Schedule at a Glance

Wednesday, October 8

08:00 - 17:00	SAF Committee and Affiliate Meetings
17:30 - 20:00	Opening Welcome Reception: Exhibit Hall and Posters Open
19:00 - 22:00	International Quiz Night

Thursday, October 9

07:00 - 08:00	SAF Fellows Breakfast
08:00 - 17:00	Registration Open
08:30 - 10:30	Joint Plenary: Knowledge Discovery, Synthesis, and Application at the Forest Science–Management Interface
10:30 - 11:00	Break in Exhibit Hall
10:00 - 17:30	Exhibits and Posters Open
11:00 - 12:00	Plenary Panel: Knowledge Discovery, Synthesis, and Application at the Forest Science–Management Interface
12:00 - 13:30	Lunch available in Exhibit Hall
12:00 - 13:30	Poster Symposia
12:00 - 13:30	David Haskell, <i>The Forest Unseen: A Year's Watch in Nature</i> , Book Signing
12:00 - 16:00	Technological Innovations Demonstrations
13:30 - 15:00	Scientific & Technical Concurrent Sessions
15:00 - 16:00	Break in Exhibit Hall
15:00 - 16:00	Poster Symposia
16:00 - 17:30	Scientific & Technical Concurrent Sessions
17:30 - 18:30	SAF National Student Congress
17:30 - 18:30	SAF Working Group Meetings
18:00 - 19:00	SAF Diversity Reception
19:00 - 21:00	University Alumni Receptions

Friday, October 10

06:30 - 07:45	Foresters' Forum (including SAF Business Meeting) – ticketed event
06:30 - 07:45	CIF/IFC Annual General Meeting

08:00 - 17:00	Registration Open
08:00 - 10:00	Plenary - Data and Models and Maps, Oh My!: Communicating Science in an Uncertain World
08:00 - 16:00	Technological Innovations Demonstrations
10:00 - 10:30	Break in Exhibit Hall
10:00 - 17:30	Exhibits and Posters Open
10:30 - 12:00	Scientific and Technical Concurrent Sessions
12:00 - 13:30	Lunch available in Exhibit Hall
12:00 - 13:30	Poster Symposia
13:00 - 16:00	Career Fair
13:30 - 15:00	Scientific and Technical Concurrent Sessions
15:00 - 16:00	Break in Exhibit Hall
15:00 - 16:00	Poster Symposia
16:00 - 17:30	Scientific and Technical Concurrent Sessions
17:30 - 18:30	Student Executive Committee
17:30 - 18:30	SAF Working Group Meetings
18:00 - 19:00	CIF/IFC President's Reception – ticketed event
19:00 - 21:30	CIF/IFC Awards Banquet – ticketed event

Saturday, October 11

06:30 - 07:45	Breakfast with the Leaders – ticketed event
08:00 - 12:00	Registration Open
08:00 - 10:00	Plenary - Applying Continuous Improvement to Forest Science-Management Partnerships
10:00 - 14:00	Exhibits and Posters Open
10:00 - 10:30	Break in Exhibit Hall
10:30 - 12:00	Scientific and Technical Concurrent Sessions
12:00 - 13:30	Lunch available in Exhibit Hall
12:00 - 13:30	Poster Symposia
13:30 - 15:00	Scientific and Technical Concurrent Sessions
15:00 - 15:30	Break
15:30 - 17:00	Scientific and Technical Concurrent Sessions
14:00 - 18:00	Poster Break-Down
14:00 - 22:00	Exhibit Hall Break-Down

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	5.	16	10.5	#1	618
	4.	16	13.1	PALLET	Form class
	3.	16	16.5	#1	78
	2.	16	20.7	PRIME	
	1.	16	26	VENEER	
	Total length	48			

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- Leaf shape (Fractals), aspect ratio and form coefficient
- Healthy, diseased and pest damage areas



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- Healthy, diseased and pest damage areas



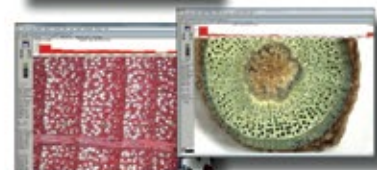
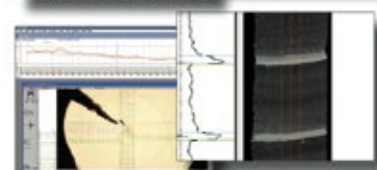
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