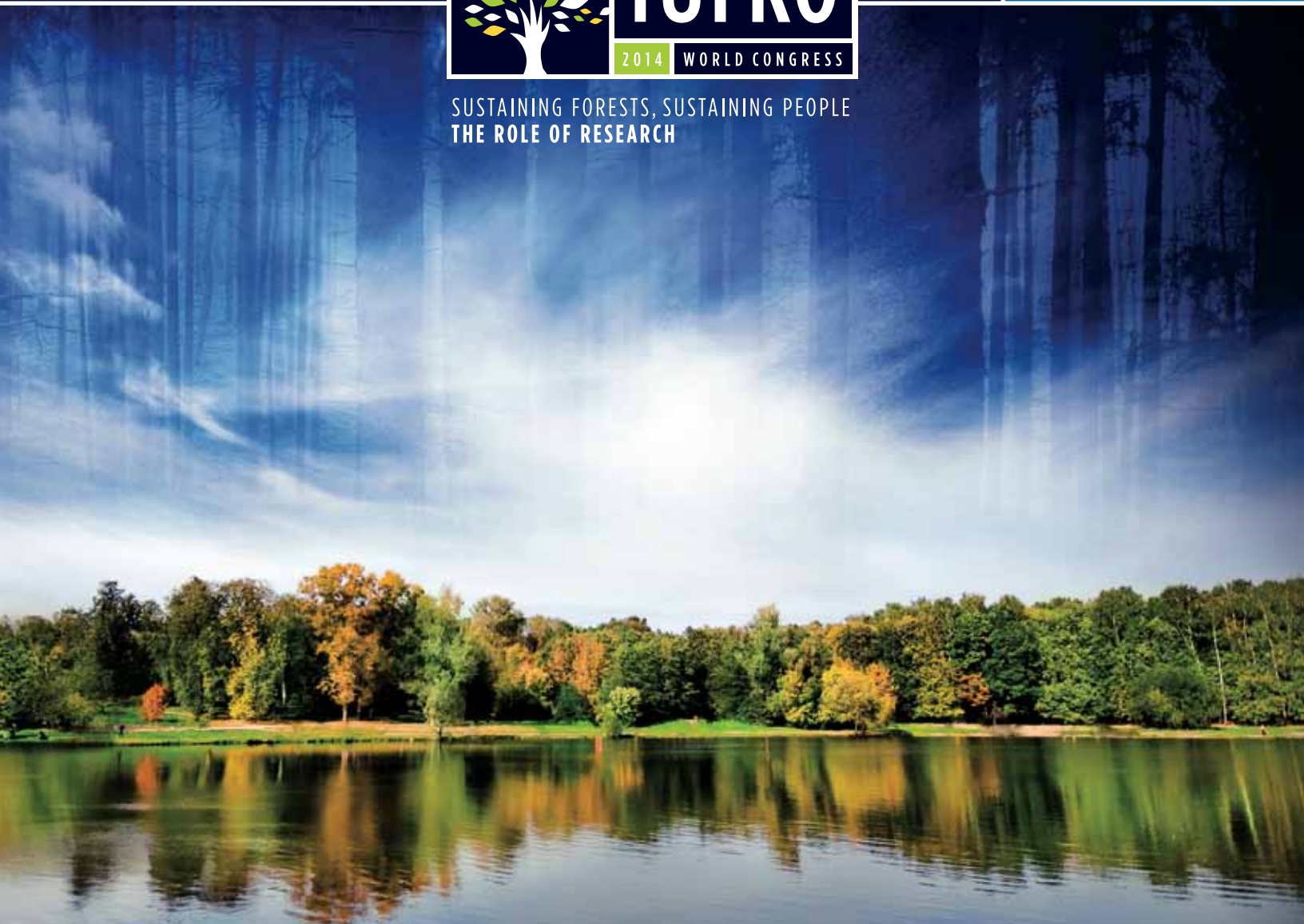


2014



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

**INFORMATION &  
REGISTRATION**



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## Invitation FROM THE HOST ORGANIZATION

The United States is proud to host the XXIV International Union of Forest Research Organizations (IUFRO) World Congress. I invite you to attend this important event.

The U.S. Forest Service has made valuable research contributions to forest management for over a century, with research as part of our mission since 1909. Forest management issues continue to change and evolve, and science has always led the way. Research expands what we know about forests and people and helps find new solutions for the challenges society faces today and into the future.

IUFRO is a key partner of the U.S. Forest Service. We have been a member of IUFRO for over 60 years. We rely on IUFRO's vast scientific network to learn about others' research results and to share with others our findings. Through our partnership with IUFRO and its global network of 700 members, we provide sound, credible science to inform decisions made by land managers and policymakers around the world.

The National Association of University Forest Resources Programs (NAUFRP), the Society of American Foresters (SAF), and the Canadian Institute of Forestry (CIF) are special partners in co-hosting this event. The NAUFRP member universities – many of them IUFRO members – represent faculty, students, extension foresters, and alumni of universities and colleges across the U.S. They are the largest community of natural resources researchers in the U.S. outside of the U.S. Forest Service. The SAF – also an IUFRO member – is the U.S. professional society for all things forests and the CIF is the Canadian voice for forestry. The SAF/CIF will hold their 2014 National Convention/General Meeting the same week, bringing an additional 1,000+ delegates to Salt Lake City, and joint sessions with the IUFRO Congress over its final three days will highlight recent successes in using the latest science to address complex resource management and policy issues.

The XXIV IUFRO World Congress will bring together scientists from the many disciplines that focus on forests, natural resources, and people. This Congress, titled "Sustaining Forests, Sustaining People: The Role of Research," will be unique and exciting. The scientific program of the Congress is robust, innovative, and diverse. Pre-Congress tours will be offered in other parts of the U.S., showcasing science and forest management while highlighting America's culture and iconic landscapes. Salt Lake City is situated in a unique and spectacular landscape in the American West and the Salt Palace Convention Center is a silver level LEED-certified sustainable facility. The Congress will offer exceptional keynote speakers, over 150 technical sessions for sharing the latest science and expanding your knowledge, a trade exposition characterized by innovation, and plenty of networking opportunities. As part of the program, delegates will visit field sites that illustrate how managers of National Forests, tribal, federal, state, and private lands are using science to improve resource management.

It is with delight that the U.S. Forest Service and our partners invite you to join us in Salt Lake City, October 5 to 11, 2014. We promise that you will have an enriching and memorable time. We look forward to seeing you there!

*Sincerely,  
Chief Tom Tidwell  
U.S. Forest Service*

### Invitación de la Organización Anfitriona

Los Estados Unidos de América estamos orgullosos de ser los anfitriones del Congreso Mundial de la Unión Internacional de Organizaciones de Investigación Forestal (IUFRO) en 2014. Les invito a participar en este importante evento.

El Servicio Forestal de los Estados Unidos ha realizado valiosas aportaciones científicas para el manejo de bosques durante más de un siglo teniendo a la investigación como parte de nuestra misión desde 1909. Los temas de manejo de bosques continúan cambiando y evolucionando, y la investigación siempre ha ido abriendo el camino. La investigación amplia y profundiza lo que sabemos sobre los bosques y la gente, y contribuye a encontrar nuevas soluciones en cuanto a los desafíos con los cuales la sociedad está confrontada hoy día y en el futuro.

IUFRO es un socio clave del Servicio Forestal de los Estados Unidos. Somos miembro de IUFRO desde hace más de 60 años. Confiamos en la amplia red científica de IUFRO para enterarnos de los resultados de investigación de otros y para compartir nuestros hallazgos

científicos con ellos. A través de nuestra asociación con IUFRO y su red global de más de 700 miembros, nosotros diseminamos resultados científicos sólidos y confiables para apoyar la toma de decisiones de los administradores de recursos naturales y de los encargados de políticas del manejo de los recursos naturales en el mundo.

La Asociación Nacional de Universidades con Programas de Recursos Forestales (National Association of University Forest Resources Programs, por su siglas NAUFRP), la Sociedad de Forestales Americanos (SAF) y el Instituto Forestal del Canadá (IFC) son socios especiales en la co-organización de este evento. Las universidades miembros de la NAUFRP – muchas de ellas miembros de IUFRO – representan a las facultades, estudiantes, extensionistas forestales, así como exalumnos universitarios y de colegios de todos los Estados Unidos. Fuera del Servicio Forestal, NAUFRP es la comunidad más grande de investigadores en el área de recursos naturales en los Estados Unidos. La SAF –también miembro de IUFRO – es la sociedad de profesionales americanos para todo lo referente a lo forestal y el IFC es la voz de los forestales canadienses. La SAF/IFC tendrá su Asamblea Nacional 2014 durante la misma semana, lo que atraerá a otros 1.000 delegados más a Salt Lake City que participarán en sesiones conjuntas del Congreso de IUFRO durante los tres últimos días,

resaltando los logros más recientes en el uso de los últimos avances científicos para abordar temas complejos de manejo de recursos forestales y de política.

El Congreso Mundial de IUFRO 2014 reunirá a científicos de las muchas disciplinas que se enfocan en los bosques, los recursos naturales y la gente. Este Congreso se titula "Sosteniendo Bosques, Sosteniendo la Gente: El Papel de la Investigación" será un evento único y fascinante. El programa científico del Congreso es robusto, innovador, y diverso. Se ofrecerán giras pre-Congreso en otras partes de los Estados Unidos, presentando la ciencia y el manejo forestal y al mismo tiempo centrandose en la cultura y los paisajes más maravillosos de los Estados Unidos. Salt Lake City se encuentra en un paisaje único y espectacular en el oeste americano; el Centro de Convenciones Salt Palace es un edificio certificado por LEED a nivel plata. El Congreso tendrá destacados conferencistas, con más de 150 sesiones técnicas para compartir la ciencia más reciente y profundizar sus conocimientos, y una innovativa exposición con una multitud de oportunidades para socializar. Como parte del programa, los delegados visitarán sitios de campo que mostrarán el manejo de Bosques Nacionales, y de los terrenos tribales, federales, estatales y privados utilizando la ciencia para mejorar el manejo de los recursos.

Es con gran placer para el Servicio Forestal de los Estados Unidos y nuestros socios invitarle a juntarse a nosotros en Salt Lake City, del 5 al 11 de octubre de 2014. Con la promesa de que pasará un tiempo enriquecedor y una experiencia inolvidable, ¡nos alegramos de antemano encontrarles allí!

### Einladung der Gastgeber-Organisation

Die Vereinigten Staaten von Amerika sind stolz darauf, Gastgeberland für den 2014 stattfindenden Weltkongress des Internationalen Verbandes Forstlicher Forschungsanstalten (IUFRO) zu sein. Ich lade Sie dazu ein, an diesem wichtigen Ereignis teilzunehmen.

Über einen Zeitraum von mehr als einem Jahrhundert hat der amerikanische Forstdienst wertvolle Forschungsbeiträge im Bereich der Waldbewirtschaftung geleistet, wobei Forschung seit 1909 Teil unseres Unternehmenskonzepts ist. Die Themen im Bereich der Waldbewirtschaftung unterliegen einem ständigen Wandel und einer kontinuierlichen Entwicklung. Die Forschung ist dabei immer unser Wegweiser: sie vertieft unser Wissen über die Wälder und in Bezug auf den Menschen und trägt dazu bei, neue Lösungen für die Herausforderungen zu finden, denen sich die Gesellschaft heute und morgen gegenübersteht.

IUFRO ist ein äußerst wichtiger Partner für den amerikanischen Forstdienst. Wir sind seit über 60 Jahren Mitglied bei IUFRO. Wir stützen uns auf IUFROs umfassende Expertise, einerseits, um an Forschungsergebnissen von anderen teilzuhaben, aber auch, um unsere Errungenschaften mit anderen Partnern zu teilen. Unsere Partnerschaft mit IUFRO und seinem weltweiten Netzwerk von mehr als 700 Mitgliedern ermöglicht es uns, fundierte und glaubwürdige Wissenschaft zur Verfügung zu stellen, wenn es darum geht, informierte Entscheidungen durch Landbesitzer und politische Akteure in der ganzen Welt vorzubereiten.

Der Nationale Verband der Universitätsprogramme über Forstliche Ressourcen (National Association of University Forest Resources Programs, NAUFRP), die Gesellschaft der Amerikanischen Forstleute (Society of American Foresters, SAF) und das Kanadische Forstinstitut (Canadian Institute of Forestry, CIF) sind unsere wichtigsten Partner bei der gemeinsamen Ausrichtung dieser Veranstaltung. Die NAUFRP-Mitgliedsuniversitäten – viele unter ihnen sind IUFRO-Mitglieder – repräsentieren Lehrende, Studenten, Berater und Universitäts- und Collegeabgänger aus ganz Amerika. Abgesehen vom amerikanischen Forstdienst stellen sie die zahlenmäßig größte Gemeinschaft von Forschern im Bereich natürlicher Ressourcen in Amerika dar. Die SAF – ebenfalls Mitglied bei IUFRO – ist der amerikanische Berufsverband für alle forstlichen Belange und das CIF ist die Stimme der kanadischen Forstleute. Die SAF/CIF wird ihren Nationalkonvent/Generalversammlung 2014 in derselben Woche abhalten, wodurch zusätzlich über 1 000 Delegierte in Salt Lake City sein werden; gemeinsame Sitzungen während der letzten drei Tage des IUFRO-Kongresses sollen jüngste Erfolge hervorheben, die bei der Umsetzung von wissenschaftlichen Ergebnissen im Hinblick auf komplexe Themen in Ressourcenmanagement und politische Fragen erzielt wurden.

Der IUFRO-Weltkongress 2014 wird Wissenschaftler aus den vielen Disziplinen zusammenbringen, die ihren Schwerpunkt im Bereich Wald, Naturressourcen, und menschliches Leben haben. Dieser Kongress mit dem Titel "Nachhaltigkeit im Wald, Nachhaltigkeit für den Menschen: Die Rolle der Wissenschaft" wird ein einzigartiges und herausragendes Ereignis sein. Das wissenschaftliche Programm des Kongresses ist durchdacht, innovativ und vielfältig. Exkursionen vor dem Kongress werden in verschiedene Regionen Amerikas führen, und werden Wissenschaft und Waldbewirtschaftung gleichermaßen wie Kultur und pittoreske Landschaften in den Vereinigten Staaten zeigen. Salt Lake City liegt

in einer einzigartigen und spektakulären Landschaft im amerikanischen Westen; das Salt Palace Konferenzzentrum ist eine nach dem LEED-System (Silber) zertifizierte Anlage. Der Kongress bietet großartige Hauptredner, mehr als 150 Fachsitzungen zum Austausch der neuesten wissenschaftlichen Ergebnisse und zur Vertiefung unseres Wissens, eine innovative Produktausstellung und jede Menge Gelegenheit zum Netzwerken. Als Teil des Programms werden die Teilnehmer auf Feldexkursionen fahren können, wobei gezeigt wird, wie die Wissenschaft von Landmanagern auf Staats-, Stammes-, Bundesstaats-, Bezirks-, und privater Ebene genutzt wird, um das Ressourcen-Management zu verbessern.

Mit größter Freude laden der amerikanische Forstdienst und seine Partner Sie dazu ein, uns in Salt Lake City vom 5. bis 11. Oktober 2014 zu begleiten. Wir versprechen, dass es eine bereichernde und unvergessliche Zeit sein wird. Wir freuen uns darauf, Sie dort zu treffen!

### Invitation de la Part de L'Organisation Hote

Les Etats Unis d'Amérique sont heureux d'accueillir le Congrès Mondial 2014 de l'Union Internationale des Instituts de Recherches Forestières (IUFRO). Je vous invite à prendre part à cet événement important.

Pendant plus d'un siècle, le Service forestier des Etats Unis a réalisé d'importantes contributions scientifiques dans le domaine de la gestion forestière, et la recherche fait partie de notre mission depuis 1909. Les thèmes de gestion forestière changent et évoluent de façon permanente, la science ayant toujours été à l'avant-garde. La recherche fait avancer nos connaissances sur les forêts et les rapports avec les hommes, et nous aide à trouver de nouvelles solutions aux défis, qu'affronte la société aujourd'hui et à l'avenir.

L'IUFRO est un partenaire important du Service forestier des Etats Unis. Nous étions membre de l'IUFRO pendant plus de 60 ans. Nous dépendons de l'ample réseau scientifique de l'IUFRO pour nous informer des résultats de recherche d'une part, et pour partager nos découvertes avec les autres acteurs d'autre part. Par notre association avec l'IUFRO et grâce au réseau global de plus de 700 membres, nous mettons à la disposition une recherche raisonnable et crédible destinée à informer les décisions prises par les gestionnaires des terres et les acteurs politiques dans le monde entier.

L'Association nationale des programmes universitaires en ressources forestières (National Association of University Forest Resources Programs, NAUFRP), la Société des professionnels forestiers américains (Society of American Foresters, SAF) et l'Institut forestier du Canada (Canadian Institute of Forestry, CIF) sont des partenaires particuliers dans la co-organisation de cet événement. Les universités membres de la NAUFRP – parmi eux de nombreux membres de l'IUFRO – représentent l'academia, les étudiants, les forestiers d'extension, les alumni universitaires de l'ensemble des Etats Unis. En dehors du Service forestier, c'est la communauté la plus large de chercheurs dans le domaine des ressources naturelles des Etats Unis. La SAF – également membre de l'IUFRO – est la société professionnelle des Etats Unis pour tout ce qui concerne les forêts et l'IFC est la voix nationale des professionnels de la forêt. La SAF/IFC célébrera sa Convention nationale/Assemblée générale 2014 la même semaine, ce qui apportera un supplément de plus de 1 000 délégués à Salt Lake City; des sessions organisées conjointement avec l'IUFRO au cours des trois derniers jours du Congrès, souligneront les derniers succès réalisés en utilisant la science la plus récente pour aborder les thèmes complexes de gestion des ressources et de politique forestières.

Le Congrès Mondial 2014 réunira les scientifiques d'un grand nombre de disciplines portant sur les forêts, les ressources naturelles et les peuples. Ce Congrès intitulé "Soutenant les Forêts, Soutenant les Peuples: le Rôle de la Recherche Scientifique" offrira un événement unique et fascinant. Le programme scientifique du Congrès est solide, innovateur et de grande diversité. Les excursions avant le Congrès amèneront les participants dans d'autres régions des Etats Unis, présentant ainsi la science et la gestion forestière tout en portant l'accent également sur la culture et les paysages pittoresques. Salt Lake City est une ville située dans un paysage unique et spectaculaire de l'Ouest américain, et le Centre des Congrès Salt Palace est un édifice certifié LEED de catégorie argent. Le Congrès offrira des orateurs exceptionnels, plus de 150 sessions techniques pour partager les résultats scientifiques et approfondir nos connaissances, une exposition innovatrice, et de nombreuses opportunités de travailler en réseau et à établir de nouvelles connaissances. Comme partie du programme, les délégués participeront à des excursions qui montreront comment les gestionnaires des Forêts Nationales, tribaux, fédéraux, publiques et privés utilisent la science pour une meilleure gestion des ressources.

C'est avec grand plaisir que le Service forestier des Etats Unis et ses partenaires vous invitent à nous rejoindre à Salt Lake City, du 5 au 11 octobre 2014. Nous vous assurons que vous passerez un temps enrichissant et mémorable. Nous nous réjouissons d'avance de vous y rencontrer!



## Invitation FROM THE IUFRO PRESIDENT

Warm Greetings from Copenhagen, Denmark!

On behalf of the International Union of Forest Research Organizations (IUFRO), it is my great pleasure to invite you to attend the XXIV IUFRO World Congress, which will take place at the Salt Palace Convention Center in Salt Lake City, Utah, United States, from 5 to 11 October 2014.

After Gainesville in 1971, the IUFRO World Congress, which is held every 4 to 5 years in various parts of the world, will again be convened in the United States of America. With this Congress, participants from all over the world will congregate at a place that offers both a world-class facility and scenic beauty in its surroundings.

This Congress will draw scientists from all fields of research related to forests and trees and stakeholders from all over the world. Outstanding speakers representing research, policy, and practice will present and discuss the latest research results and innovations on various themes, such as 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.

The scientific program will include a number of plenary, sub-plenary, technical, and poster sessions under the title "Sustaining Forests, Sustaining People: The Role of Research". Other exciting events and excursions are being organized as well; hence, you are all invited to participate and enjoy the scientific and social parts of this fascinating Congress.

I would like to encourage you to take time to experience the best of what an IUFRO World Congress has to offer.

Looking forward to seeing you in Salt Lake City in October 2014.

*Niels Elers Koch,  
IUFRO President*

### Invitación del Presidente de IUFRO

¡Cordiales saludos desde Copenhagen, Dinamarca!

A nombre de la Unión Internacional de las Organizaciones de Investigación Forestal (IUFRO), es un gran placer invitarles a participar en el XXIV Congreso Mundial de IUFRO, que tendrá lugar en el Centro de Convenciones Salt Palace en Salt Lake City, Utah, Estados Unidos, del 5 al 11 de octubre de 2014.

Después de Gainesville en 1971, el Congreso Mundial de IUFRO, que se organiza cada cuatro o cinco años en diferentes partes del mundo, se celebrará otra vez en los Estados Unidos de América. Este Congreso reunirá a participantes de todo el mundo en un lugar que ofrece tanto unas instalaciones de clase mundial y la belleza pintoresca de sus alrededores.

Este Congreso atraerá a científicos de todos campos de investigación relacionados con los bosques y árboles, y también a personas interesadas en asuntos forestales de todo el mundo. Destacados conferencistas representando la ciencia, la regulación y la práctica, presentarán y discutirán los últimos resultados científicos e innovaciones sobre varios temas, como los de los Bosques para la Gente, la Biodiversidad Forestal y Servicios de los Ecosistemas, los Bosques y Cambio Climático, las Interacciones entre Bosques y Agua, los Bosques y Productos Forestales para un Futuro más Verde, y la Salud de los Bosques en un Mundo Cambiante.

El programa científico incluirá una multitud de sesiones plenarias, sub-plenarias, técnicas y de presentación posters en relación al tema del Congreso "Sosteniendo Bosques, Sosteniendo la Gente: El Papel de la Investigación". Se organizarán también fantásticos eventos y

excursiones. Por esto, les invitamos a participar y aprovechar de los programas científicos y sociales que les ofrece este fascinante Congreso.

Quisiera animarles a tomar el tiempo para disfrutar de lo mejor que un Congreso Mundial IUFRO puede ofrecerles. Nos vemos en Salt Lake City en octubre de 2014.

### Einladung des IUFRO-Präsidenten

Herzliche Grüße aus Kopenhagen, Dänemark!

Im Namen des Internationalen Verbandes Forstlicher Forschungsanstalten (IUFRO) ist es mir eine große Freude, Sie zur Teilnahme am XXIV. IUFRO Weltkongress einzuladen, der im Salt Palace Konferenzzentrum in Salt Lake City, Utah, Vereinigte Staaten von Amerika, vom 5. bis 11. Oktober 2014 stattfinden wird.

Nach Gainesville 1971 kehrt der IUFRO-Weltkongress, der alle 4 bis 5 Jahre an verschiedenen Orten der Welt abgehalten wird, wieder in die Vereinigten Staaten von Amerika zurück. Damit werden sich Teilnehmer aus der ganzen Welt an einem Ort treffen, der nicht nur eine Kongressanlage von Weltklasse, sondern auch großartige Landschaften in der Umgebung vorweisen kann.

Dieser Kongress wird Wissenschaftler aus allen wald- und baumbezogenen wissenschaftlichen Bereichen sowie auch Akteure aus der ganzen Welt versammeln. Hervorragende Redner aus Wissenschaft, Politik und Praxis werden die aktuellsten wissenschaftlichen Ergebnisse

zu verschiedenen Themen wie Wälder für den Menschen, Biodiversität und ökosystemische Dienstleistungen im Wald, Wälder und Klimawandel, Interaktionen zwischen Wald und Wasser, Waldbiomasse und Bioenergie, Wälder und Waldprodukte für eine grünere Zukunft, und Waldgesundheit in einer sich verändernden Welt, präsentieren und diskutieren.

Das wissenschaftliche Programm wird zum Thema "Nachhaltigkeit im Wald, Nachhaltigkeit für den Menschen: die Rolle der Wissenschaft" eine Reihe von Plenar-, Subplenar-, Fachsitzungen und Poster-Präsentationen umfassen. Zusätzlich wird es noch weitere spannende Veranstaltungen und Exkursionen geben. Daher sind Sie alle dazu eingeladen, an den wissenschaftlichen und gesellschaftlichen Programmpunkten teilzunehmen und diesen faszinierenden Kongress zu genießen.

Nehmen Sie sich Zeit und erleben Sie das Beste, was ein IUFRO-Weltkongress zu bieten hat. Ich freue mich darauf, Sie im Oktober 2014 in Salt Lake City zu sehen.

### Invitation du Président de L'IUFRO

Salutations cordiales de Copenhague, Danemark!

C'est avec grand plaisir et au nom de l'Union Internationale des Instituts de Recherches Forestières que je vous invite à prendre part au XXIVème Congrès Mondial de l'IUFRO, qui aura lieu au Centre de Congrès Salt Palace à Salt Lake City, Utah, Etats Unis, du 5 au 11 octobre 2014.

Après Gainesville en 1971, le Congrès Mondial de l'IUFRO, qui s'organise tous les quatre à cinq ans dans différents endroits du monde entier, retournera aux Etats Unis d'Amérique. A cette occasion, des participants de toutes nations se réuniront à un endroit qui offre à la fois des installations de classe mondiale ainsi que la beauté scénique des alentours.

Ce Congrès attirera les scientifiques de tous les domaines de recherche relatifs aux forêts et aux arbres, et des acteurs et parties prenantes du monde entier. Des orateurs extraordinaires représentant la science, la politique et la pratique, présenteront et discuteront les derniers résultats de recherche scientifique et les innovations sous des thèmes divers, tels que les Forêts pour les hommes, la Biodiversité forestière et services écosystémiques, les Forêts et changements climatiques, les Interactions forêts-eau, la Biomasse et bio-énergie forestières, les Forêts et produits forestiers pour un avenir plus vert, et la Santé des forêts dans un monde en changement.

Le programme scientifique offrira des sessions plénières, sous-plénières, techniques et de présentation d'affiches sous le titre "Soutenant les Forêts, Soutenant les Peuples: le Rôle de la Recherche Scientifique". En outre, des événements sociaux et des excursions seront organisés; je vous invite donc à participer et à jouir des programmes scientifiques ainsi que des éléments sociaux de ce Congrès fascinant.

Je vous encourage cordialement à prendre votre temps pour venir vivre le meilleur de ce qu'un Congrès Mondial IUFRO peut offrir. Je me réjouis d'avance de vous rencontrer à Salt Lake City en octobre 2014.

# CONGRESS ORGANIZATION INFORMATION

The Congress Scientific Committee (CSC), chaired by Dr. John Parrotta, U.S. Forest Service, is responsible for the development of a high-quality scientific program. Members of this committee include IUFRO's Vice-Presidents and representatives from IUFRO's Divisions and the International Forestry Students' Association (IFSA).

## Congress Committees

### The IUFRO 2014 Congress Scientific Committee

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); Su See Lee (VP); Mike Wingfield (VP); Lisa Hansen (International Forestry Students' Association, IFSA); ex officio members: Richard Guldin (Congress Organizing Committee Chair); Jennifer Hayes (Congress Organizing Committee Project Manager).

### The IUFRO 2014 Congress Organizing Committee

Richard Guldin (Chair); Jennifer Hayes (Project Manager); Daryl Lederle (Project Specialist)

The Congress Organizing Committee (COC), chaired by Dr. Richard Guldin, U.S. Forest Service (FS), is responsible for the organization of the Congress. Members of this committee include senior staff from universities, non-profits, and state, local, and federal government.

Please note that subcommittees continue to grow and change in membership, so not all members may be recognized at this time. We greatly appreciate all of the time and effort our collaborators have put into planning this event.

#### Communications:

James Boulger (International Forestry Students Association-IFSA); Cass Cairns (FS); Nan Christianson, Co-Chair (FS); Diane Denenberg (Western Forestry Leadership Coalition); Darrell Kenops (SAF); Michael Huck (IUFRO-Global Forest Information Service); Matt Meade (Canadian Institute of Forestry); Cynthia Miner, Co-Chair (FS); Nalini Nadkarni (University of Utah); Erin O'Connor (FS); Juan Carlos Peña (Centro Agronómico Tropical de Investigación y Enseñanza); Terry Sharik (Michigan Tech University); Patrick Shea (University of Utah); Carlin Starrs (SAF); Michael Sullivan (FS); Christopher Whited (SAF); Gerda Wolfrum (IUFRO); Richard Zenn (World Forestry Center).

#### Congress Services:

James Allen, Co-Chair (Northern Arizona University); Vicki Berrett, Co-Chair (FS); Lisa Hansen (IFSA); Jason King (FS); Carol Redelsheimer (SAF); Anthony Salas (FS); Terry Sharik (Michigan Technological University); Carlin Starrs (SAF).

#### Excursions:

Martina Barnes (FS); Dale Bartos (FS); Tim Beaty (SAF); Barbara Bentz (FS); Vicki Berrett (FS); Kathy Cahlow (FS); Bill Dunning (FS); Don Evans (FS); Renee Flanagan (FS); George Garcia (FS); Brian Geils (FS); Kurt Gottschalk (FS); Liz Hebertson (FS); Terrie Jain, Co-Chair (FS); Stan Kitchen, Co-Chair (FS); Mike Kuhns (Utah State University); Michael Mack (Visit Salt Lake); Darrin McAvoy (FS); Geoff McNaughton (Utah State Forest Service); Kevin Megown (FS); Doug Page (Bureau of Land Management); Meridith Perkins (Utah State Forest Service); Charles Peterson (FS); Mike Saunders (Purdue University); Jeff Schramm (FS); John Shaw (FS); Michael Sullivan (FS).

#### Exhibition:

Matt Meade (Canadian Institute of Forestry); Clark Seeley (Seely Management Consulting, Inc.); Lynn Sprague (SAF); Christopher Whited, Chair (SAF).

#### Operations:

Susan Fox, Co-Chair (FS); Morris Johnson (FS); Kier Klepzig (FS); Matt Meade (Canadian Institute of Forestry); others to be determined.

#### Scientist Assistance Program:

Rima Eid (FS); Michael Kleine (IUFRO); Jim Johnson (Oregon State University); John Parrotta (FS); Carlos Rodriguez-Franco (FS); Bogdan Strimbu (Louisiana Technical University).



#### Strategic Planning:

Nadine Block (Sustainable Forestry Initiative); Steve Bullard, Co-Chair (National Association of University Forest Resources Programs – Stephen F. Austin State University); Jiquan Chen (Ecological Society of America, University of Toledo); Sally Collins (Rights and Resources); Marlene Finley (FS); Sam Foster, Co-Chair (FS); Michael Goergen (SAF); Al Lucier (National Council for Air and Stream Improvement); Matt Meade (Canadian Institute of Forestry); Don Motanic (Intertribal Timber Council); Kurt Pregitzer (University of Idaho); Tim White (University of Florida).

The COC is working very closely with the Society of American Foresters and Canadian Institute of Forestry, who are co-locating their 2014 annual meetings with the IUFRO World Congress.

## XXIV World Congress Hosts

#### International Host – IUFRO

IUFRO, the International Union of Forest Research Organizations, is a non-profit, non-governmental international network of forest scientists. IUFRO promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic, and social aspects of forests and trees. It disseminates scientific knowledge to stakeholders and decision-makers and contributes to forest policy and on-the-ground forest management.

#### IUFRO Headquarters

Marxergasse 2, 1030, Vienna, Austria

Tel: +43-1-877-0151-0

E-mail: [office@iufro.org](mailto:office@iufro.org)

Website: <http://www.iufro.org>

#### United States Host – U.S. 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 public national forests and grasslands and provides technical and financial assistance to state and private forestry agencies. 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.

#### U.S. Forest Service Headquarters

1400 Independence Ave., SW

Washington, D.C. 20250

Tel: +1 (800) 832-1355

Website: <http://www.fs.fed.us>

## Key Partners

#### The National Association of University Forest Resources Programs

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, policymakers, 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. NAUFRP is serving as the co-host for the 2014 Congress.

#### The Society of American Foresters

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 sets 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 60 different countries. The 2014 SAF National Convention will occur 8-11 October, co-located with the IUFRO World Congress.

#### The Canadian Institute of Forestry

The Canadian Institute of Forestry/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. The 2014 CIF Annual General Meeting will occur 8-11 October, co-located with the IUFRO World Congress.



## YOUR DESTINATION INFORMATION



### The United States of America – Host Country

The United States, located in North America and bordered by the Pacific and Atlantic Oceans, has an incredibly diverse climate and geography, the world's largest economy, is the third most populous nation in the world, and is seen as a leader in scientific research and technological innovation.

Prior to European colonization, the land that is now the United States was home to many different Native American tribes. Western European settlers arrived in 1513, and in 1776 the English colonies along the Atlantic coast declared their independence from Britain, creating the United States of America. What started as a collection of 13 colonies in the mid-1700s has blossomed into 50 states spanning more than 9.83 million km<sup>2</sup>. A nation of immigrants, the United States is a diverse country: ethnically, religiously, and culturally.

### Salt Lake City, Utah – Host City & State

Thousands of years before the arrival of European explorers, the Anasazi and the Fremont tribes resided in what is now Utah, and in the 18<sup>th</sup> century, the Navajo settled in the region. In the mid-18<sup>th</sup> century, other Uto-Aztec tribes, including the Goshute, the Paiute, the Shoshone and the Ute people, also settled in the region. Spanish exploration of the region began in 1540, and in 1847 Mormon pioneers settled Utah. Utah's geography is diverse, as it hosts three unique geologic regions: the Colorado Plateau, the Great Basin, and the Rocky Mountains. Utah's climate is generally arid to semi-arid, with the exception of the higher elevation areas in the Wasatch Mountains that benefit from the lake effect.

Salt Lake City is the capital of Utah, with a metropolitan area population of about 1 million. Sitting at an average elevation of 4,327 feet (1,320 m) above sea level, the city is surrounded by the Great Salt Lake to the

northwest, the steep Wasatch Mountains to the east, and the Oquirrh Mountains to the west. Long known as home to epic skiing and a gateway to the nation's most stunning national parks, Salt Lake City offers excellent cultural arts and a thriving restaurant and bar scene. The mountains around Salt Lake City contain many narrow glacial and stream carved canyons and stunning forests. The area will be bursting with autumn color when you arrive in October. October average temperatures range from a daytime high of 65° F/18° C to an evening low of 46° F/6° C. The city is easily explored on foot, by bicycle, or by using the TRAX public transit system. For more information about Salt Lake City, visit <http://www.visitsaltlake.com/about-salt-lake/>.

Salt Lake City International Airport (SLC) receives direct flights from many cities in Asia, Canada, Europe, and Latin America. Travel time between the airport and downtown Salt Lake City is about 10 minutes.

### Venue: The Salt Palace Convention Center

The Salt Palace Convention Center is in the heart of Utah's state capital. With one of the nation's largest rooftop solar arrays and a certified Silver LEED (Leadership in Energy & Environmental Design) green building, the Salt Palace takes sustainability very seriously. 679,000 square feet / 63,081 square meters of meeting and exhibit space make this location flexible to meet the IUFRO World Congresses various needs.



100 S. West Temple  
Salt Lake City, Utah 84101  
+1 385 468 2222



## CONGRESS SCIENTIFIC PROGRAM

The scientific program for the XXIV IUFRO World Congress will consist of plenary sessions, sub-plenary sessions, technical sessions, and themed poster sessions. In keeping with the spirit of the Congress title – Sustaining Forests, Sustaining People: The Role of Research – the Congress Scientific Committee (CSC) is developing a program that will highlight how forest science is helping address significant environmental, social, and economic challenges facing our world.

### Congress Scientific Themes

#### Forests for People

Forests, woodlands, and agroforests play a vital role in the lives of people in both rural and urban communities, supporting livelihoods, food and energy security, human health and well-being, and culture. This Theme, which focuses on social, cultural and economic aspects of the management and use of forest resources, covers a broad set of topics such as: human health and well-being, urban forestry, small-scale and community forest management, rural development, nature-based recreation and tourism, landscape planning and management, conservation and forest ethics, forest history, traditional knowledge and culture, forest policy, governance and tenure issues, communications, and education.

#### Forest Biodiversity and Ecosystem Services

The conservation and sustainable use of forest biodiversity is essential for maintaining the full range of environmental, economic, social, and cultural goods and services provided by forests. Sessions within this Theme will consider the role of biodiversity in the provision of ecosystem services; the effects of deforestation, forest degradation, natural disturbances, and human management activities on forest ecosystems, habitats and species, and provision of ecosystem services at different spatial and temporal scales; assessment and valuation of forest ecosystem services; strategies for forest biodiversity conservation and restoration; and challenges in achieving a balance between biodiversity conservation and management of forests for a variety of ecosystem services.

#### Forests and Climate Change

Understanding and anticipating the impacts of climate change on forest ecosystems and the services they provide to people are critical to efforts to develop and implement effective policies and management strategies for climate change mitigation and adaptation. Sessions within this Theme will consider climate change effects on forest ecosystem structure and function; interactions with other natural disturbance and forest management regimes; land-use and land cover change; monitoring and modelling of forest condition, biomass, carbon and climate change-related impacts on forest ecosystems, landscapes, and communities; and environmental, social, and economic implications of forest-based climate change adaptation strategies and mitigation opportunities (such as REDD+).

#### Forest and Water Interactions

An understanding of the linkages between forests and forested wetlands and hydrological processes is essential for managing ecosystems at watershed or landscape scales to sustain the availability and quality of water resources critical for human well-being. Sessions within this Theme will examine the influence of land cover and land use, large-scale natural and human-induced disturbance (including climate change), and forest management on watershed hydrology, biodiversity and provision of water-related ecosystem services, as well as the latest findings from long-term watershed research, studies of mangrove and riparian forests, and adaptation of trees and forests to drought.

The scientific program for the IUFRO XXIV World Congress will bring together scientists of all ages, from throughout the world, across the full range of forest-related disciplines who are engaged in research, education and application of science-based knowledge to meet the changing needs of our increasingly globalized society.



### Forest Biomass and Bioenergy

The rapidly growing use of wood and biomass sources for bioenergy, biofuels, and bio-based products requires the development of innovative production systems, more efficient use of material from plantations based on end-user, raw material and processing requirements, and management of competition for biomass from planted and natural forests for energy vs. other forest products and environmental services. Sessions within this Theme will explore these issues as well as current research on genomics, biotechnology, and breeding and selection of trees to meet changing biomass and bioenergy objectives; and life-cycle analyses and 'eco-efficiency' of forest bioenergy production systems and technologies.

### Forests and Forest Products for a Greener Future

The future of forest management in the face of forest loss and ever-increasing demands for food, timber and wood fiber, water and other ecosystem services, and uncertainties posed by globalization and economic, social, and environmental uncertainty, is a fundamental challenge for the forest sector and the forest research community alike. Innovation, including development of economically and socially sustainable and environmentally responsible production systems and end-products, will play an important role to meet these challenges. Sessions within this Theme will explore these issues as well as forest sector trends, new research developments in forest operations, innovations in wood-based and non-wood forest products development, and forest certification.

### Forest Health in a Changing World

Healthy forests are foundational to the delivery of ecosystem goods and services. Yet, these benefits are under threat from sources ranging from climate change to globalization. Sessions within this Theme focus on trends in hazard occurrence (air pollution, responses to climate change, invasive species introduction, fire, and global trade pathways); vulnerability of forests (tree resistance, shifts in pest and host species relationships, and forest resilience); society and forest health (socio-economic impacts associated with forest health); mechanisms of risk mitigation (pest management solutions, alternative forest management strategies, modelling); and global trade issues (surveillance strategies, forest pest incursion management, and phytosanitary protection).

*English is the official language of the Congress. Simultaneous interpretation services will not be provided during the Congress. Local and volunteer translation services are available for specific needs.*

*\*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.*



## 2014 Program Schedule

TIME	SUNDAY OCT 5 <sup>th</sup>	MONDAY OCT 6 <sup>th</sup>	TUESDAY OCT 7 <sup>th</sup>	WEDNESDAY OCT 8 <sup>th</sup>	THURSDAY OCT 9 <sup>th</sup>	FRIDAY OCT 10 <sup>th</sup>	SATURDAY OCT 11 <sup>th</sup>	TIME
7:00								7:00
7:30			Registration & Check-In					7:30
8:00		Registration & Check-In						8:00
8:30								8:30
9:00			Concurrent Technical Sessions, Including President's Discussion		Joint SAF/IUFRO Plenary & IUFRO Concurrent Technical Sessions	Concurrent Technical Sessions	Concurrent Technical Sessions	9:00
9:30								9:30
10:00		Opening Ceremony						10:00
10:30			Break					10:30
11:00								11:00
11:30		Keynote Plenary Session	Keynote Plenary Session		Keynote Plenary Session	Keynote Plenary Session	Keynote Plenary Session	11:30
12:00								12:00
12:30		Lunch Break & IUFRO Business Sessions	Lunch Break & IUFRO Business Sessions	In-Congress Tours	Lunch Break & Poster Viewing	Lunch Break & Poster Viewing	Lunch Break & Board Luncheon (invite only)	12:30
13:00	Registration Opens							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								14:30
15:00		Break & Poster Viewing	Break & Poster Viewing		Break & Poster Viewing	Break & Poster Viewing	Break	15:00
15:30	IUFRO Special Events							15:30
16:00		Concurrent Technical Sessions	Concurrent Technical Sessions & International Council Meeting (invite only)		Concurrent Technical Sessions	Concurrent Technical Sessions & International Council Meeting (invite only)	Closing Ceremony	16:00
16:30								16:30
17:00								17:00
17:30								17:30
18:00				Trade Exhibition	Exhibit Hall Grand Opening Reception			18:00
18:30	Making the Most out of the Congress	Dinner Break	Dinner Break		Dinner Break	Dinner Break & International Council Reception (invite only)		18:30
19:00								19:00
19:30		IUFRO Welcome Reception					Farewell Gala	19:30
20:00			Side Events & IUFRO Business Sessions	Side Events	Side Events & Alumni Receptions	Side Events & IUFRO Divisional Meetings		20:00
20:30								20:30
21:00								21:00

## Plenary Sessions

IUFRO will hold plenary sessions on Monday, Tuesday, Friday, and Saturday from 11:00-12:00. Presentations by distinguished plenary speakers will address the Congress Title — *Sustaining Forests, Sustaining People: The Role of Research* — from different perspectives, bringing their expertise to IUFRO's global audience. We are pleased to announce that the following internationally renowned experts will address the Congress.

### 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.

### Cecil Konijnendijk

#### *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 .extbook *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.

### 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.

### Connie Hedegaard

#### *(to be confirmed)*

Ms. Connie Hedegaard had already been working with climate issues for several years by the time she began her appointment as the EU's first Commissioner for Climate Action in February 2010. In August 2004 she was appointed as Danish Minister for the Environment. In 2007 she was in charge of setting up the Danish Ministry of Climate and Energy, where one of the main tasks was to prepare the UN Climate Conference in Copenhagen in December 2009. Commissioner Hedegaard began her political career while a student at the University of Copenhagen. She became the youngest Danish MP when she was elected to Parliament in 1984 at age 23. Besides her political career, Connie Hedegaard has had a long career in journalism. Between 1990 and 2004 she wrote for a variety of newspapers, as well as heading the news bulletin service Radioavisen at the Danish Broadcasting Corporation. Ms. Hedegaard has chaired the Centre for Cultural Cooperation with Developing Countries (CKU) and was a member of the board of the Danish Parliament's Democracy Foundation. She has received various prizes for her involvement in and contributions to social debate. Her publications include *Da klimaet blev hot*, ("When the climate got hot") published in Denmark in 2008, as well as contributions to several anthologies and topical books.

## Joint Plenary – IUFRO-FS-SAF-CIF

In addition to the traditional IUFRO plenary sessions, a joint plenary session, co-organized by IUFRO, the U.S. Forest Service, the Society of American Foresters, and the Canadian Institute of Forestry, will be held on Thursday 9 October. Keynotes followed by a distinguished panel will address the session theme of 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.

Originally a landscape designer, Mr. Dangermond has a passion for trees. 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 advisory committees for U.S. agencies including the NASA Science and Technology Advisory Committee, the U.S. Environmental Protection Agency, and the National Academy of Sciences. Today, Mr. Dangermond helps many types of organizations deploy spatial data in enterprise environments. He is forging ahead with GIS platforms on which people collaborate to design plans for maintaining a green and sustainable planet.

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 continues to be active as the leader of GIS innovation.



### 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* (<http://theforestunseen.com>; Viking Penguin, 2012), 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" (<http://ow.ly/ojNZo>).

Haskell holds degrees from the University of Oxford and from Cornell University. He is Professor of Biology at the University of the South, where he served as Chair of Biology. He is a Fellow of the American Council of Learned Societies and was granted Elective Membership in the American Ornithologists' Union in recognition of "significant contributions to ornithology." 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.

Haskell's classes have received national attention for the innovative ways they combine science, contemplation, and action in the community. In 2009, the Carnegie and CASE Foundations named him Professor of the Year for Tennessee. The Oxford American featured him in 2011 as one of the southern U.S.'s most creative teachers, and his teaching has been profiled in USA Today, The Tennessean, and other newspapers.

He lives in Sewanee, Tennessee, with his wife, Sarah Vance who runs Cudzoo Farm ([www.cudzooofarm.com](http://www.cudzooofarm.com)), a homestead farm that produces hand-made goat milk soaps.

### Mike Wingfield - Panelist

Dr. Michael (Mike) Wingfield, University of Minnesota (1983), Harvard Business School AMP175, 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, many of who now hold very senior positions globally. He was responsible for establishing the Tree Protection Co-operative Programme (TPCP) in 1990, which became the catalyst for the establishment in 1998 of the Forestry and Agricultural Biotechnology Institute (FABI; [www.fabinet.up.ac.za](http://www.fabinet.up.ac.za)) of which he is the founding director. He has published widely on the topic of tree health in more than 700 research papers, seven books, and in numerous prestigious invited presentations globally. He has served in many prestigious positions, and based on his research, has received numerous awards and honors. He has been elected as a fellow of the Royal Society of South Africa, Academy of Sciences of South Africa, the Southern African Society for Plant Pathology, and the American Phytopathological Society. He has received honorary doctorates from the University of British Columbia, Canada (2012) and North Carolina State University (2013) and received the highest scientific award (Kwame Nkrumah Scientific Award) from the African Union in 2013. Dr. Wingfield has been recommended to the IUFRO International Council as the next IUFRO President.

### Sally Collins - Panelist

Ms. Sally Collins served as the first Director of the USDA Office of Environmental Markets (OEM) prior to retiring from USDA. OEM was established in 2008 "to advance markets for ecosystem services provided by farms, forests, and ranches across the country." She has spent more than 25 years in natural resource management, working at the "field level" as a forest manager for 20 years prior to coming to Washington DC. Her last field assignment was Forest Supervisor of the 1.6 million acre Deschutes National Forest. For eight years, she served as Associate Chief for the U.S. Forest Service, sharing responsibilities with the Chief for management of all of the 155 National Forests and Grasslands, providing support to tribal, state and private lands, and overseeing research and international programs. She currently owns a consulting firm dedicated to primarily two types of work: 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. For seven years, she has served (and continues to serve) as Co-Chair of MegaFlorestais, an organization established to informally connect the top forest leaders in the world. Working with Duke University's Nicholas Institute and Moore Foundation, she is helping to lead an initiative to incorporate the value of ecosystem services into federal planning and decision-making. She also serves as a trustee member on several boards: Forest Trends, American Forest Foundation, Pinchot Institute, and Clear Insight.

*Additional panelists to be named — stay tuned for updates.*

## Sub-Plenary Sessions

Four unique sub-plenary sessions will be offered each day (excluding the day of the In-Congress Tours). These sessions will be linked to the Congress Themes and are being organized by senior leaders of IUFRO's Divisions and Task Forces. A full list of Sub-plenary sessions can be found in Appendix A.

## Technical Sessions

The 2014 IUFRO World Congress will offer 150 technical sessions, featuring the latest advances in forest and natural resources science relevant to one or more of the Congress themes. A list of all technical sessions can be found in Appendix B.

### Responsibilities of Technical Session Organizers

Session organizers are expected to maintain close communication with the Chair of the Congress Scientific Committee throughout the development of their session program. Session coordinators will be asked to review abstracts submitted for consideration to their session, and may be asked to assist the Congress Scientific Committee in editing of accepted abstracts.

They will also need to communicate and coordinate with colleagues who will be presenting papers or posters during their session regarding submission of abstracts as well as other matters regarding their session such as the session format, lengths of presentations, etc. They are also responsible for moderating sessions (or assigning session moderation responsibilities) during the Congress, and are encouraged to pursue publication options for papers presented in their sessions.

Session organizers should remind all those who are expected to present during their sessions that they will be required to submit their abstracts via the Congress website ([www.iufro2014.com](http://www.iufro2014.com)) during the abstract submission period from 5 August until the 15 October 2013 deadline. In addition, please remind your speakers with accepted abstracts (for either oral or poster presentations) that they must register by 30 April 2014 to retain their spot on the program.

## Call for Abstracts

**ALL SUBMISSIONS MUST BE MADE ELECTRONICALLY ON THE CONGRESS WEBSITE (<http://iufro2014.com>) BY 15 OCTOBER 2013**

The Congress Scientific Committee (CSC) welcomes submission of abstracts for presentations in sub-plenary, technical, and poster sessions. Submitted abstracts should address the Congress themes.

When submitting an abstract (online at: <http://iufro2014.com/>), you will be asked to select the most appropriate Congress theme and technical session within each theme, as well as the IUFRO Division most closely related to the topic of your abstract. Please note that abstract submissions for sub-plenary sessions are restricted to those who have been invited by the sub-plenary session coordinators. Their abstracts must also be submitted by the 15 October deadline.

**All abstract submissions must be made electronically on the congress website (<http://iufro2014.com>) by 15 October 2013.**



If the topic of your abstract does not appear to be related to any of the listed sessions, you should select the “Other” option under each Congress theme. Selecting this option will not affect its evaluation, and all accepted abstracts will be allocated to an appropriate Congress session prior to evaluation.

Authors must select one of the following options: oral presentation preferred (but would accept poster presentation) or poster presentation preferred. A presentation presented as a poster is considered to be as important as an oral presentation.

To give as many colleagues as possible an opportunity to present their work at the Congress, the number of abstracts that can be considered will be limited. Although an individual may be listed as a co-author on several abstracts, the number of abstracts that can be accepted for a presenting author (i.e., the author or co-author who will actually make the presentation during the Congress, designated on the abstract submission form) will be strictly limited to 2 per person (and 1 for a single session). For poster presentations, the maximum number of contributions for a presenting author will be 5.

All presenting authors (oral or poster presentations) must register for the Congress by 30 April 2014; failure to do so will mean that the presentation will be deleted from the program and from the abstracts volume.

### Information to be provided when submitting an abstract

#### Language:

English is preferred but abstracts in Spanish, French or German (official IUFRO languages) will also be considered. Abstracts submitted in Spanish or French should be submitted by 15 September, to allow sufficient time for translation prior to review by session coordinators and the Congress Scientific Committee. Oral presentations may be made in any language, but the slides accompanying the presentation must be in English.

#### Title of the paper:

Must be less than 20 words long and should clearly summarize the topic of the abstract.

#### Main text of abstract (170-200 words):

Should describe the context and specific problem/topic of study, methods, main results, and conclusions in plain writing. Examples are provided in Appendix C.

Key words or phrases (up to 5).

#### Authors

Include name, organizational affiliation, and email address of each author. (The author who will present the paper or poster at the Congress must be designated as the Presenting Author).

#### Criteria for selection

All abstracts will be reviewed and evaluated first by the appropriate session coordinator, and then by members of the Congress Scientific Committee. Primary selection criteria include scientific quality, topical significance, and relevance to the Congress themes and to the particular session to which the abstract is submitted.

Abstracts will be evaluated after the 15 October 2013 submission deadline. Acceptance decisions will be made in early December.

Submission of an abstract implies consent by the authors to have the abstract published by the Congress. Although Congress proceedings with full papers will not be published, session organizers are encouraged to explore alternative publication options (books, special issues of journals, etc.) for papers and/or posters presented in their sessions.

#### Responsibilities of Oral Presenters

All delegates presenting oral presentations are asked to load their presentations into the presentation system at least the evening before their scheduled session. A Speaker Ready room is provided in the Salt Palace (Room 254B - subject to change). Speakers can finalize and test their presentations before loading them into the presentation system. Technical staff will be available in the room to provide assistance. It will be very difficult to load presentations in the individual technical session rooms. So, please plan to have your presentation complete and ready to load the evening before you are scheduled to present. Also, please ensure you register by 30 April 2014 to retain your spot in the Program.

# CONGRESS TOURS

## Pre-Congress Tours

A full suite of Pre-Congress scientific tours will be offered, providing delegates with an opportunity to visit a variety of landscapes across the United States and to learn about ongoing research and management issues. Tours may have minimum capacities and if those are not reached, some tours may be cancelled or subject to change. Tour pricing and more detailed information will be available in October 2013 at [www.iufro2014.com](http://www.iufro2014.com).

### PRE-01. Managing for Ecosystem Values across Mesic and Dry Forests in the Pacific Northwest

We begin this six-day tour in Olympia, Washington and conclude in Portland, Oregon. Day one features variable density silviculture objectives, fish and wildlife needs, and public perceptions of management on the Washington State Capitol Forest. Day two will include stops at Mount St. Helens National Volcanic Monument to view and discuss recovery since the 1980 eruption, and conclude with a stop and overnight lodging in the Columbia River Gorge. On day three, our route from the Gorge takes us over the Columbia River into Oregon, passing around Mt. Hood, stopping on the Warm Springs Indian Reservation, and continuing south to the Deschutes National Forest for discussions on fire fuels, forest resilience, and habitat needs for spotted owl and prey. We conclude that day by crossing the Cascade Range and arriving overnight at the H.J. Andrews Experimental Forest, where we will spend day four and another overnight on the Experimental Forest. Throughout the tour, participants will gain an

appreciation of how resource management issues contrast between wet temperate forests on the west side of the Cascade Range and the dry forests of the east side. Day five will be spent traveling north to Portland for an unstructured evening in the city before leaving the next day for Salt Lake City. This tour is not handicap accessible. Strenuous hiking is not anticipated.

### PRE-02. Northern California: Red Wine to Redwoods

This three-day tour provides an opportunity to see unique forest and wetland restoration, and highlights cooperation with university professors and the application of research. Guests will enjoy San Francisco, a tour of the wine country, and the redwood forests of northern California. Day one includes a visit to the Pacific Southwest Research Station's (PSW) facilities in Albany, CA to meet with researchers and hear topical briefings. That afternoon, guests will tour several Napa Valley wineries, and then travel the northern Californian coast to spend the night in Fort Bragg. The second day

Further details about all of these tours will be available online at [www.iufro2014.com](http://www.iufro2014.com) in October 2013.

will include a tour of the Caspar Creek Experimental Watershed, the Redwood Experimental Forest, and a reception at California State University at Humboldt Bay. The third day includes a visit with researchers at the PSW's Arcata lab, meeting with researchers and participating in topical briefings, then driving to Sacramento for a flight to Salt Lake City. There will be no strenuous hiking. This tour is handicap accessible.

### PRE-03. Southern California: Fire, Restoration, Urban Forestry, and Land Management Practices

This three-day tour offers an opportunity to visit unique forestry research and development efforts in southern California, the practical application of forestry management, and offers a wide range of social activities from Disneyland to Hollywood. The first day has a tour of the Pacific Southwest Research Station (PSW) in Riverside, CA, meeting with researchers and participating in topical briefings on a wide range of topics including fire research, restoration, and air quality, and A Million Trees Los Angeles presentation that will shed light on urban forestry issues and challenges. A visit to the San Bernardino National Forest focusing on restoration, prescribed burning, and urban forestry will follow. On the second day the group will tour the Joshua Tree National Monument with air quality researchers. The group will spend the night in Riverside and fly to Salt Lake City the following day. There will be no strenuous hiking and the tour is handicap accessible.

### PRE-04. Lake Tahoe: Genetics, Air Pollution, and Fuels Management Research

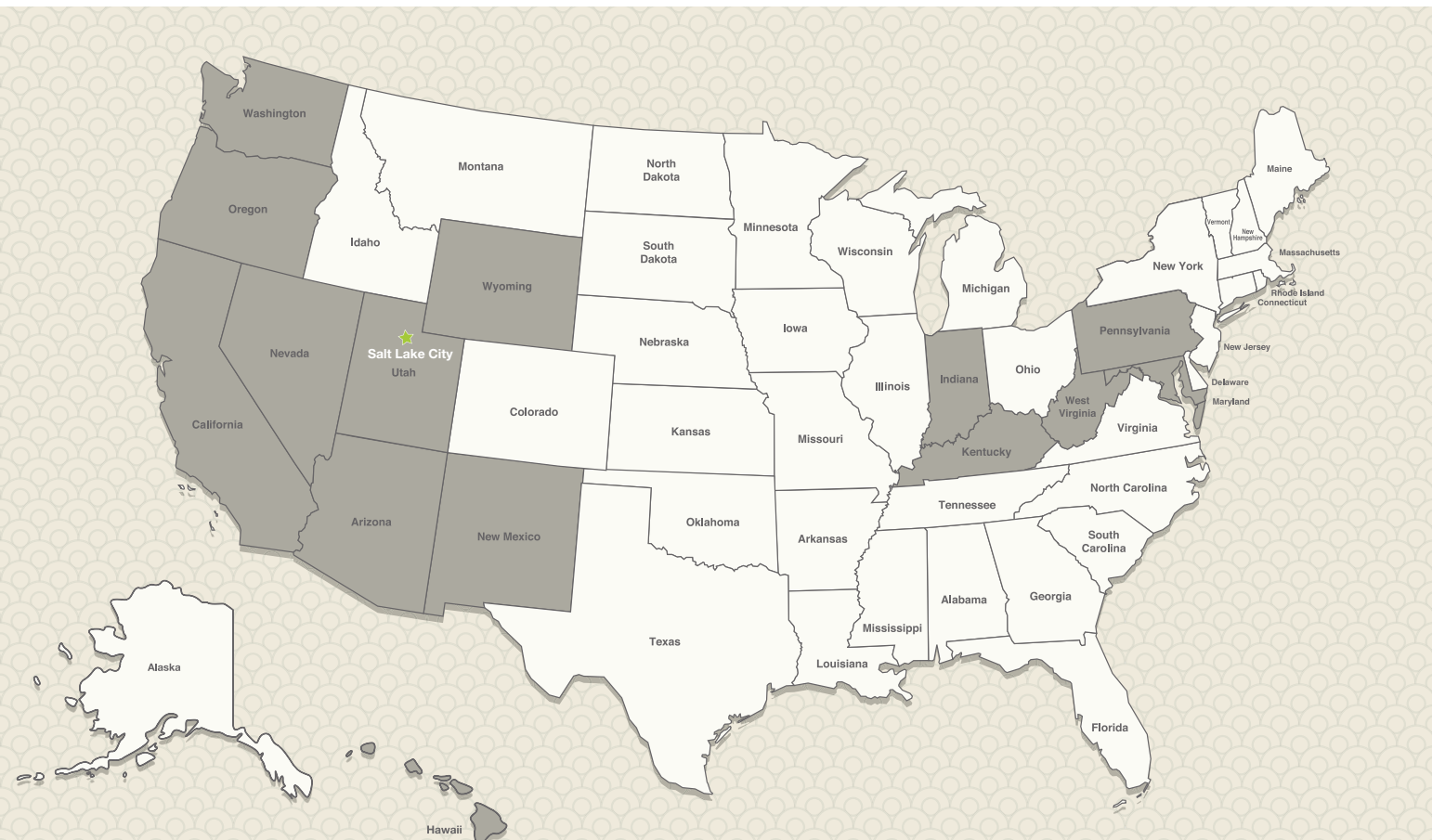
This two-day tour offers an opportunity to visit unique forestry research and development efforts in the Lake Tahoe area, and various tourist activities in South Lake Tahoe. Participants will meet in San Francisco or Sacramento and travel to Placerville, California to visit the Forest Services' Institute of Forest Genetics facilities to learn about current research, including genetics research on wood formation of poplars and blister rust on bristlecone pines. The group will also visit a Lake Tahoe site to view field research in action. Pacific Southwest Research Station (PSW) researchers and Forest Service land managers will show air-monitoring equipment and discuss effects of air pollution on ecology and lake clarity. After an overnight stay in South Lake Tahoe, the group will tour the Sagehen Experimental Forest and discuss current research. PSW collaborates with the University of California at Berkeley on a variety of hydrology, fuels management, and soils research projects. This tour is handicap accessible and no strenuous hiking is anticipated.

### PRE-05. Ecology and Biogeography of the Wasatch and Uinta Mountains

This three-day tour will start and end in Salt Lake City. The tour will cross the Wasatch Range and circumnavigate the Uinta Mountain Range, and traverse life zones from the desert scrub to alpine tundra. Scenic opportunities include Bear Lake, Flaming Gorge, and ancient Native American rock art. Northern Utah is an important ecological crossroad and was a principal corridor for Euro-American settlement of the West. This area is culturally enriched by more than 12,000 years of Native American influence. Tour stops will be in a field setting, with potential opportunities for strenuous hikes (to peaks of 3600m). So, proper field attire and ability to negotiate moderately uneven ground are required. This tour is not handicap accessible. Freezing temperatures and snow are a possibility on this trip.

### PRE-06. Central Hardwood Forest Management

This week-long tour, hosted by the Hardwood Tree Improvement and Regeneration Center and Purdue University, highlights Central Hardwood Forest management, from nursery production through stand establishment and harvesting to utilization. Southern Indiana is within the heart of the Central Hardwood Forest, a species-diverse region containing a mixture of several hardwood-dominated forest types. These forests are well-known for producing some of the best black walnut and white oak timber in the world. Technical tour stops include the Hardwood Ecosystem Experiment, the Hoosier National Forest, Vallonia State Forest Nursery, David R. Webb Company's state of the art veneer mill, and ArborAmerica's high production black walnut plantations. Leisure stops may include the Louisville Slugger Baseball Bat Factory, Oliver Winery, Fort Quiatenon, and several Indiana State Parks. This tour includes some strenuous hikes and is not handicap accessible.



Pre-05: Wasatch and Uinta Mountains



Pre-07: Great Basin &amp; Colorado Plateau

### PRE-07. Sustaining Diverse Ecosystems of the Great Basin and Colorado Plateau through Community Partnership

The six-day tour begins in Las Vegas, Nevada, and crosses northern Arizona and Utah to end in Salt Lake City. The world's largest contiguous ponderosa pine forest occurs on the Colorado Plateau in Arizona and New Mexico. Vast woodlands of pinyon pine and juniper occupy the Plateau and adjacent regions of the Great Basin in Nevada and Utah. Significant stops on this six-day journey provide an opportunity to view live-zones from the Mojave Desert to alpine tundra on several mountain ranges and world-renowned geologic features—the San Francisco Volcanic Field, Grand Canyon, and southern Utah plateaus. Along the way, the tour will meet with foresters and managers dealing with issues of wild land recreation, tribal forestry, forest restoration, and forest health. The tour is handicap accessible and there will be opportunities for hiking.

### PRE-08. Hilo, Hawaii: Forest Health in a Changing World, Forest Biodiversity

This two-day tour offers an opportunity to visit unique forestry research and development efforts in the Pacific Islands, and various outdoor activities near Hilo, including Volcanoes National Park. Visitors may also build in a layover in Honolulu for tourist interests. Day one includes a visit to the Pacific Southwest Research Station's (PSW) Institute of Pacific Island Forestry to meet with researchers and State and Private Forestry representatives to discuss issues and research efforts followed by a tour of the Hakalau Wildlife Refuge. PSW collaborates with other federal and state agencies on bird research at this site. Stay overnight in Hilo. Day two includes a tour of the Hawaii Experimental Tropical Forest to learn about current research including strawberry guava biocontrol, climate change effects, and Forest Inventory Assessment plots and a visit to PSW's new Science and Education Center. This tour is not handicap accessible and there are several opportunities for moderately strenuous hikes into the forest. An optional visit to Hawaii Volcanoes National Park can be arranged.

### PRE-09. Oak Silviculture in the Central Appalachians

This six-day field tour focuses on the ecology and silviculture of mixed oak forests in the Central Appalachian Mountains. It begins in Washington DC, where delegates have the option to tour National Monuments by night. The tour then travels to various sites in Maryland, West Virginia, and Pennsylvania to view eastern mixed hardwood forests. Potential sites include Catoctin Mountain National Park/Cunningham Falls State Park MD to see invasive species effects; Maryland's Savage River State Forest to look at forest management and regeneration treatments; West Virginia University's Experimental Forest and Cooper's Rock State Forest to see hardwood management and regeneration and the crop tree release demonstration area; Pennsylvania State University to see stand development and regeneration research and American chestnut restoration research; Moshannon and Clear Creek State Forests to see cooperative oak regeneration and wildlife research of the U.S. Forest Service and the Commonwealth of Pennsylvania.

The tour is not handicap accessible, but the majority of the field sites are reasonably level and will involve only light to moderate hiking.

## In-Congress Tours

The Congress registration fee includes participation in a full day In-Congress tour. Various tours will be offered, some will focus on specific management issues and associated research; others will showcase a diversity of research and natural resources challenges; and a few sight-seeing only trips will be offered. Participants should plan ahead for these tours and bring appropriate sturdy footwear, a warm sweater, and a rain jacket. Please see below for a sampling of offered tours. More detailed information will be available on the website at the time of registration.

### IC-01. Northern Utah

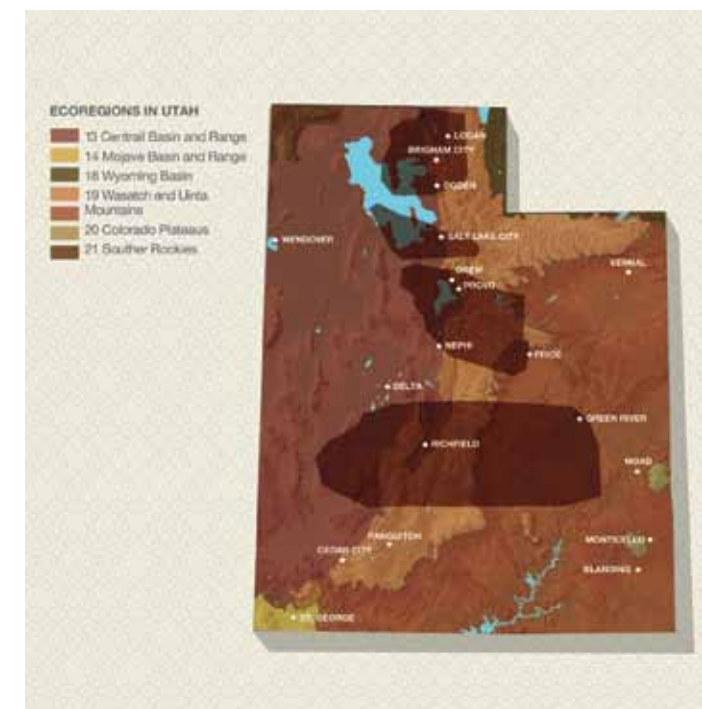
Ogden and Logan Canyon and Bear Lake provide a stunning backdrop for this set of tours with options to focus on forest health, recreation, forest operations and silviculture, or watershed management. Alternatively, you can take a tour that highlights a diversity of natural resource research and management challenges. Traveling through previously glaciated ecosystems; aspen, spruce-fir, and lodgepole pine forests; juniper and woodland valleys; this area of Utah is sure to take your breath away.

### IC-02. Salt Lake City Area

Travel up the heart of Utah's ski country to learn about the successes and challenges of meeting the demands of outdoor recreators, water users, wilderness seekers, and wildlife in this wildland-urban interface. Delegates can also choose to take a walking tour of Salt Lake City's urban forest, learn about the city's forestry initiatives, invasive species management, water management, and community education and outreach.

### IC-03. Central Utah

Just south of Salt Lake City is the town of Provo and the entrance to the American Fork Canyon. Delegates can choose tours that showcase everything from native plant propagation and wild shrubland research, to a walking tour of the Brigham Young University arboretum, to a caving adventure on Mt. Timpanogos, to a scenic drive over American Fork Canyon where delegates can learn about fire and fuel management and restoration. Delegates might choose to travel up Spanish Fork Canyon to learn about watershed management, pinyon-juniper expansion, multiple-use management, and fire and fuels management in the area; or head to the highest elevation Mammoth Discovery Site and visit the Eastern Prehistoric Museum in Price, Utah, for a guided tour of Fremont and Ute Indian artifacts and archeological finds from the region.



### IC-04. Southern Utah

Diverse tours are offered across the expanse of southern Utah, showcasing stunning red rock formations, ponderosa pine forests, and aspen ecosystems; and highlighting some of the area's cultural heritage, like the Fremont Indian State Park. A wide range of tours will be offered, including sightseeing tours to Arches or Capitol Reef National Parks; and scientific tours focused on mastication demonstrations, pinyon-juniper woodland management, non-timber forest product economics, wildland fire prevention, response and restoration, and more. One tour will even visit the famous aspen Pando clone, one of the largest living organisms in the world.

## Post-Congress Tours

After the Congress, several tours will allow participants to continue on their learning journey, or to sightsee at local landmarks. The following tours may be offered for an additional fee and others will likely be added, so please check the website for more information when registering.

### POST-01. Henry Mountains (3 days, 2 nights)

Begin Monday the 13<sup>th</sup> of October by traveling from Salt Lake to Torrey with a boxed lunch provided en route. That afternoon, take a driving tour of Capitol Reef National Park. Monday evening, enjoy a presentation by Charles Kay, Repeat Photography of the Henry Mountains and surrounding area. On Tuesday, tour the Henry Mountains and McMillan Spring Stewardship Project. Enjoy a traditional Dutch oven lunch and discuss the topics of ecosystem management, ponderosa pine restoration, wildlife management (free-roaming bison and trophy mule deer), pinyon-juniper management, fire management, and stewardship contracting. Wednesday will be spent returning to Salt Lake City. This excursion is limited to 25 people.

*Price Per Person: \$300 (includes transportation and three meals - other meals are on your own). Hotel reservations are on your own at the Broken Spur Inn in Torrey for ~\$80/night.*

### POST-02. National Parks (4 days, 3 nights)

On day 1, depart Salt Lake City and travel south along the Rocky Mountains and visit Deadhorse Point with amazing views of Canyonlands National Park before arriving at Arches National Park, which has more natural stone arches than any other place in the world. After time to explore and photograph some of the most spectacular arches, head to Moab, Utah, for the night. For day 2, visit the Mexican Hat balancing rock en route to Monument Valley, the most filmed area in the Western United States. Enjoy lunch at Gouldings Trading Post, the site of many John Wayne films. After lunch, meet a local Navajo guide and board 4-wheel drive vehicles for a tour of Monument Valley. Then continue on past the Glen Canyon Dam to the beautiful Lake Powell, the second largest man-made reservoir in America. On day 3, visit Kanab, Utah, the setting for more than 200 major motion



Post-02: Bryce Canyon National Park



Post-03: Tetons

pictures since the 1930s. Next, visit Zion National Park and Bryce Canyon National Park. On day 4, return to Salt Lake City, passing the childhood home of Butch Cassidy and the scenic Sevier River Valley. The tour will return to Salt Lake City at approximately 4:00 pm.

*Price Per Person (based on 30 passengers): Single Rate - \$1,275.00 USD, Double Rate - \$950.00 USD*

#### **POST-03. Yellowstone, Tetons & Jackson Hole (3 days, 2 nights)**

Depart Salt Lake City on day 1 and drive past the Great Salt Lake, through the beautiful Snake River valley of Idaho to West Yellowstone, the western gate of our nation's first national park. Your evening includes a visit to the Grizzly and Wolf Discovery Center. Day 2 is for exploring Yellowstone National Park, a mysterious land of steaming geysers and bubbling mudpots. Pass by Jackson Lake and Jenny Lake's picture-postcard settings before arriving in the resort town of Jackson for the night's lodging. On day 3, drive through rugged Snake River Canyon and pastoral Star Valley. See the stunning aquamarine blue of majestic Bear Lake before you enter the beautiful Cache Valley. The lunch stop will include a visit to the American West Heritage Center to learn the history of the west over the last 150 years. Return to Salt Lake City for flights out after 5:30pm.

*Price Per Person (based on 30 passengers): Single Rate - \$1,100.00 USD, Double Rate - \$795.00 USD*

#### **POST-04. Arches & Canyonlands (2 days, 1 night)**

Depart Salt Lake City on day 1 to Arches National Park, visiting all the park highlights including Park Avenue, Balance Rock, The Windows, and Delicate Arch. A picnic lunch will be provided before visiting Moab, also known as the "Adventure Capitol of Utah." Enjoy a Sunset Jet Boat Ride on the mighty Colorado River through spectacular red rock canyons. As the sun dips in the west, the canyon colors come to life while you learn about the river's ecosystem, geology, and history. Enjoy a delicious BBQ dinner served on the banks of the Colorado River before returning to your hotel. On day 2, travel to Dead Horse Point State Park for one of the most spectacular scenes in the southwest, with Canyonlands National Park stretching to the south and the mighty Colorado River 2,000 feet below. Arrive in Salt Lake City by 4:00 pm.

*Price Per Person (based on 25 passengers): Single Rate - \$650.00 USD, Double Rate - \$550.00 USD*

## Accompanying Persons Program

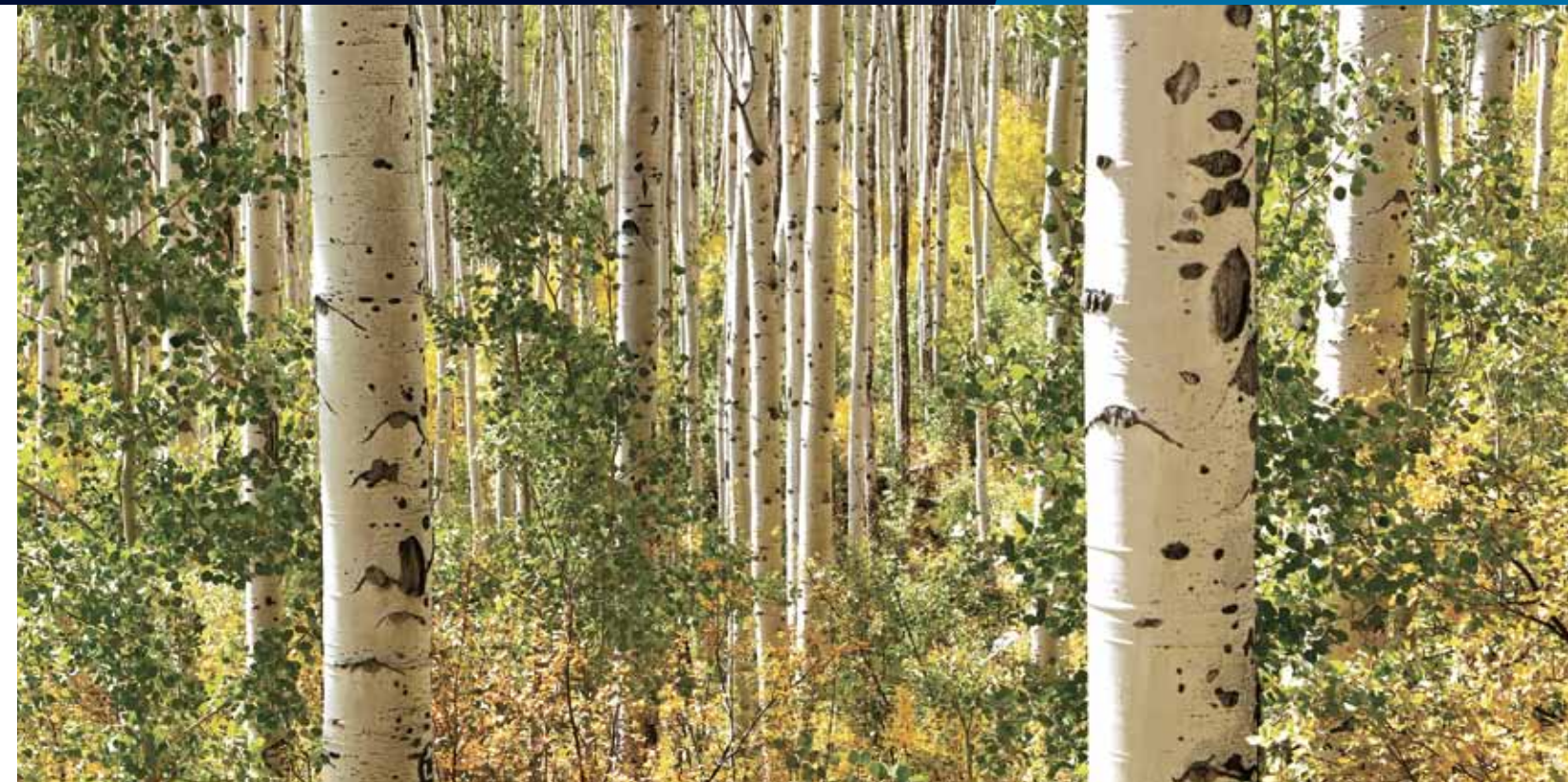
An exciting Accompanying Persons Program will be offered on Tuesday, Thursday, and Friday of the Congress. The following are some of the tours that may be offered:

#### **AP-01. Antelope Island & Great Salt Lake with Horseback or Kayak Options**

Antelope Island has 28,000 acres of pristine ecosystem that reflects what the Salt Lake Valley was like when the first settlers arrived. Today the island is protected as a Utah State Park and is home to a stunning variety of wildlife including Mule Deer, Bighorn Sheep, Antelope, Bison and dozens of migratory bird species. This tour to Antelope Island is designed to offer a variety of experiences. Guests on this tour will be escorted by a professional guide who will provide narrative on the history, geography, and share the wildlife viewing opportunities as you travel around the island. Guests who want a different experience may register in advance to enjoy either a horseback ride on the island or kayak on the Great Salt Lake.

#### **AP-02. Golden Spike Historic Monument & Bear River Bird Refuge**

Start the day by heading north and back in time to the Golden Spike National Historic Site which marks Promontory Summit, the place where the Union Pacific and Central Pacific rails met to form the nation's first transcontinental railroad on May 10, 1869. The next stop will be the Idle Isle Café in historic Brigham City. This local icon has served great food with friendly service since 1921 and the unique décor of



the 1920s remains. The last stop is the new visitors' center at Bear River Migratory Bird Refuge for the opportunity to view a wide variety of shore and migratory bird species. The refuge list has over 200 species represented with half a million ducks and geese concentrated at the refuge each fall.

#### **AP-03. Park City with Utah Olympic Park, Historic Site Bike Tour or Park City Resort**

Beginning as a raucous mining town in the 1850s, Park City has grown to become the finest and most accessible mountain resort destination in North America. Today, Park City is a skiing mecca and get away for the rich and famous – yet still retains the charming qualities of a mountain mining town. Guests will have three options on this tour. For those who want to experience the sights, recent history, and culture of the area, begin by touring Utah Olympic Park; the venue during the 2002 Olympic Winter Games for Ski Jumping, Bobsled, and Luge followed by a visit to historic Main Street to stroll the street for a quick bite and some shopping. For those who want to experience a leisurely mountain bike ride, register in advance to join a three-hour historic sites bike tour. The final option is to purchase the activities at Park City Mountain Resort including the zip line, alpine slide and mountain coaster.

#### **AP-04. Gardens of Salt Lake with Temple Square & Red Butte Gardens**

Begin with a visit to Temple Square, the heart of Salt Lake City and the Headquarters of The Church of Jesus Christ of Latter-day Saints. The Square is managed to show a naturalistic approach to planting design. The Mormon Conference Center Roof Garden (4 acres) imitates native grassland, with wild flowers and water channels. Next, at Red Butte Garden

and Arboretum take a guided tour through their 20-acres of display gardens and learn about the flora and fauna in an unparalleled setting of mountain beauty. The garden features a 1,500-acre arboretum with over 9,000 specimens of trees and shrubs from around the globe. The arboretum collection dates back to 1931. With over 150 acres of gardens with walking paths and natural area with hiking trails, Red Butte Garden is the largest botanical and ecological center in the Intermountain West that tests, displays, and interprets regional horticulture.

#### **AP-05. Salt Lake & Temple Square Historic Walking Tour**

Visit the historic downtown area, including the world-famous Mormon Temple and Temple Square; and many historical buildings throughout the area including the Joseph Smith Memorial Building (Hotel Utah-1911), the homes of Mormon leader Brigham Young (1856), and more. Learn of the trials and triumphs of the pioneers who transported the granite to build their temple from Little Cottonwood Canyon.



# the SCIENTIST ASSISTANCE PROGRAM

# IUFRO SPECIAL PROGRAMME FOR DEVELOPMENT OF CAPACITIES

The Scientist Assistance Program (SAP) is designed to provide delegates from developing countries with financial assistance to participate in the XXIV IUFRO World Congress. **Application criteria include:**

#### Accepted paper or poster:

Accepted Abstract for Oral or Poster presentation: Applicants must be listed as a *presenting author* for an accepted abstract for an oral or poster presentation.

#### Involvement in IUFRO activities:

Applicants must be affiliated with IUFRO, either directly as an officeholder or as an active member of an IUFRO unit, or they must be employed by an IUFRO member organization.

#### Past SAP funding:

Applicants who have been funded by IUFRO to attend previous Congresses will still be considered, but with less preference.

#### Rationale for funding request:

In 500 words or less describe how your participation in the IUFRO World Congress will benefit you and your institution/country.

**Other considerations that will influence selection are as follows:**

#### Scientific achievement since 2010:

Applicants should provide a list of their recent achievements (i.e. journal papers published, conference papers, or other publications).

#### Developing capacity:

In an effort to build technical capacity in the next generation of scientists, preferential support will be given to early- and mid career scientists. Students are not eligible for the SAP program.

#### Gender:

To support more women in scientific fields in developing countries, special attention will be given to ensure gender balance.

**Applications will be submitted through the registration process, which opens 30 November 2013, and must be received by 1 April 2014.**

Apply for this training when you apply for the Scientist Assistance Program.



IUFRO through the Special Programme for Development of Capacities (formerly the IUFRO Special Programme for Developing Countries) will host a weeklong capacity-building training for approximately 80 scientists from developing countries from 30 September to 4 October 2014 in Snowbird, Utah. Applications for this training will be submitted through the registration process, accompanying the Scientist Assistance Program application, which opens 30 November 2013.

#### Training Workshops

Coursework for this week will include:

- Communicating Forest Research
- Working Effectively at the Interface of Forest Science and Forest Policy
- Evidence-based Forestry
- Forest-related Scientific Research Methods

**For questions on the Scientist Assistance Program for the 2014 IUFRO World Congress, please contact:**

Dr. Jim Johnson  
Oregon State University  
Jim.Johnson@oregonstate.edu

Dr. Carlos Rodriguez-Franco  
U.S. Forest Service  
crodriguezfranco@fs.fed.us

Dr. Michael Kleine  
IUFRO Headquarters  
kleine@iufro.org



# 2014 OFFICIAL EVENTS

## Take advantage of the following Official Events!

### Tree Planting Ceremony

*Sunday, 5 October*

A tree planting ceremony will be held on the afternoon Sunday 5 October. All delegates are welcome to attend. Details will be available at [www.iufro2014.com](http://www.iufro2014.com).

### Congress Introductory Session

*Sunday, 5 October*

If this is your first IUFRO World Congress, consider attending this session. Organized by IUFRO-SPDC, this session gives delegates an overview of what to expect and how to make the most of your experience. Please check the website ([www.iufro2014.com](http://www.iufro2014.com)) closer to the event date for location details (18:00-19:00).

### Opening Ceremony

*Monday, 6 October*

Congress delegates are invited to attend this ceremony where they will be treated to cultural performances and opening remarks from invited dignitaries (9:00-11:00).

### Welcome Reception

*Monday, 6 October*

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 (18:30-20:30).

### Exposition Hall Opening Reception

*Wednesday, 8 October*

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 follow the day's In-Congress tour (18:00-19:30).

### Closing Ceremony

*Saturday, 11 October*

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 (15:30-17:30)!

### Farewell Gala and Dinner

*Saturday, 11 October*

Enjoy a uniquely western farewell gala and dinner 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 new and old friends (18:00-20:00).

## 2014 SPECIAL EVENTS

## IUFRO ADMINISTRATIVE MEETINGS

Visit [www.iufro2014.com](http://www.iufro2014.com) for more information on these programs and for all points of contact.

### Side Events

A limited number of meeting rooms will be made available free of charge, on a first-come, first-serve basis for side events. Please contact Jennifer Hayes at [jenniferhayes@fs.fed.us](mailto:jenniferhayes@fs.fed.us) if you are interested in organizing a side event.

### Alumni Receptions

*Thursday, 9 October*

Thursday, October 9 (19:00 – 21:00) has been designated for university and college Alumni Receptions (coordinated with the Society of American Foresters). Reception space will be provided at various hotels around town free of charge, but universities are responsible for contracting with the hotels for their own food and beverage. Please contact Carol Redelsheimer at [redelsheimerc@safnet.org](mailto:redelsheimerc@safnet.org) if you are interested in organizing an Alumni Reception.

### Student Networking Event

*Wednesday, 8 October*

A student-networking event is being organized for the evening of Wednesday 8 October in the Convention Center. This is co-sponsored by the Student Chapters of the Society of American Foresters and the International Forestry Students' Association. All students attending the Congress are

welcome and are encouraged to attend. Please contact Lisa Hansen at [hansen.lisa.c@gmail.com](mailto:hansen.lisa.c@gmail.com) for more information.

### Pre-Congress Scientific Training Courses and Workshops

A number of training courses and workshops may be organized and offered in the week before the Congress. These training events will focus on topics and skills relevant to scientists for enhancing the quality of research as well as its dissemination for policy and management. A full list of courses and details will be posted on the Congress website as they are available. If you are interested in organizing a Pre-Congress training course, please contact Jennifer Hayes at [jenniferhayes@fs.fed.us](mailto:jenniferhayes@fs.fed.us).

### President's Discussion

*Tuesday, 7 October*

The IUFRO President's Discussion will be held on Tuesday 7 October during the morning technical session block, from 8:00 to 10:30.

### Additional Information

Further details and points of contact for all of these programs will be available on the website at [www.iufro2014.com](http://www.iufro2014.com). You can also like us on Facebook ([www.facebook.com/iufro2014](http://www.facebook.com/iufro2014)) or follow us on Twitter @iufro2014 for the most up-to-date information on the Congress.

### Enlarged Board Meeting

*Friday, 3 October – Saturday, 4 October*

This meeting of the Enlarged IUFRO Board will take place on Friday 3 October and Saturday 4 October at the Marriott Hotel, which is located directly across from the Salt Palace Convention Center. Attendance at this meeting is by invitation only.

### Management Committee Meeting

*Thursday, 2 October*

The Management Committee will meet on Thursday 2 October at the Marriott Hotel. Attendance at this meeting is by invitation only.

### International Council Meetings

*Tuesday, 7 October & Friday, 10 October*

The International Council will meet on Tuesday 7 October and Friday 10 October from 15:30 to 18:00, during the same time block as the afternoon concurrent technical sessions. An International Council reception will be held on Friday 10 October immediately following the meeting in the same room. Attendance at this meeting and the reception is by invitation only.

### Divisional Meetings

*Friday, 10 October*

Meetings of all 9 Divisions will occur on Friday 10 October from 19:00 to 21:00 at the Convention Center. Division Coordinators should complete the reservation request form attached at the end of this book indicating the number of expected participants. IUFRO Headquarters and the COC will assign rooms based on best fit.

### Working Party, Research Group, and Task Force Business Meetings

*Monday, 6 October & Tuesday, 7 October*

Business Sessions for Research Groups, Working Parties, and Task Forces will be held on Monday 6 October and Tuesday 7 October over the lunch break from 12:00 to 13:30 and also on the evening Tuesday 7 October from 19:00 to 20:30. Sessions are 40-minutes long, so each time block accommodates two sessions. Should your unit need the full one and a half hours, please indicate this special request on your reservation form. These sessions are intended for administrative and business issues related to IUFRO units, not for scientific presentations. Organizers should complete the reservation request form in Appendix D at the end of this book requesting their reservations. IUFRO Headquarters and the COC will assign rooms on a first come, first serve basis and will try to match the room size to the expected attendance.

The Working Party, Research Group, and Task Force Business Meetings deadline for applications is 15 April 2014.

# 2014 AWARDS & RECOGNITIONS

## Send us your nominations!

Awards will be presented at the World Congress to honor special scientific performances and achievements. There are still good chances for your candidates to be among the awardees and to receive a ticket to travel to Salt Lake City and have the opportunity to present the award winning work to the Congress participants. Therefore, choose among the Scientific Achievement Award (SAA), Outstanding Doctoral Research Award (ODRA) and the IUFRO Student Award (ISA) and make your nominations soon. Bear in mind that you can only nominate candidates from IUFRO Member Organizations!

Find more information and nomination forms on our website <http://www.iufro.org/discover/awards/>. No self-nominations are accepted. Send your nominations to the Chair of the IUFRO Honors & Awards Committee, Professor Shirong Liu, [liusr@caf.ac.cn](mailto:liusr@caf.ac.cn) with copy to the IUFRO Executive Director, [office@iufro.org](mailto:office@iufro.org).

### Scientific Achievement Award (SAA)

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

### Outstanding Doctoral Research Award (ODRA)

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

### IUFRO Student Award (ISA)

Up to one award per IUFRO Division to recognize outstanding individual achievements in forest science made by Master's degree students (or equivalent), and to encourage their further work within the fields of research covered by the Union. Nominations can be made through IUFRO member organizations or officeholders and through members of the International Forestry Students' Association (IFSA).

### Best Poster Award (BPA)

To encourage public dissemination of high quality research and to recognize distinguished poster presentations at the IUFRO World Congress. Each IUFRO Division will be awarding one Best Poster Award based on selections made during the Congress poster sessions.

### IUFRO World Congress Host Scientific Award

Honors a truly outstanding scientist from the Congress host country/countries who has elevated the profile of forest science and research accomplishments. Nominations for this award are not due until 31 December 2013 and should be sent to [rguldin@fs.fed.us](mailto:rguldin@fs.fed.us).

# 2014 SPONSORSHIP & TRADE EXPOSITION

A trade exposition will take place from 8-11 October, offering a tremendous opportunity to showcase your products, services, and achievements in front of a stage of key researchers, decision-makers, and forestry leaders.

The IUFRO World Congress is expected to bring more than 3,000 participants from over 100 countries to Salt Lake City, Utah, USA. Researchers, land managers, and policymakers will attend this premier event designed to facilitate learning and global cooperation among those who conduct research on, protect, manage, and use forests around the world. IUFRO World Congresses are held once every 5 years; this is the first Congress to be held in the United States since 1971.

The World Congress is being held in collaboration with the Society of American Foresters' 94<sup>th</sup> National Convention and the Canadian Institute of Forestry's General Meeting. This collaboration is expected to bring an additional 1,000+ forest land managers and decision-makers to the Salt Palace Convention Center.

This event provides a unique opportunity to promote your organization to a diverse, domestic, and global audience interested in many dimensions of managing natural resources, sustainability, and research. Multiple sponsorship levels will be available, allowing all interested organizations to support this Congress. Donations are also welcome to the Scientist Assistance Program and Student Scholarship Fund, which are intended to help build capacity for forest research and management in the developing world and in the future generation of forest leaders.

A trade exposition will take place from 8-11 October, offering a tremendous opportunity to showcase your products, services, and achievements in front of a stage of key researchers, decision-makers, and forestry leaders.

Increase your visibility and organization's profile by becoming a sponsor or exhibitor!

<p><b>DIAMOND – \$50,000+</b></p> <ul style="list-style-type: none"> <li>Bronze benefits plus</li> <li>Six 10x10 booth spaces</li> <li>Six registrations, including welcome reception &amp; farewell gala dinner</li> <li>Three minutes at a reception to speak about your organization</li> <li>Full page and 1/2 program advertisements</li> <li>Verbal recognition during Welcome Reception</li> <li>Organization logo on cover of Program Booklet</li> <li>Special event signage with logo</li> </ul>	<p><b>SILVER – \$5,000+</b></p> <ul style="list-style-type: none"> <li>Bronze benefits plus</li> <li>One 10x10 booth space</li> <li>One registration</li> </ul>
<p><b>PLATINUM – \$25,000+</b></p> <ul style="list-style-type: none"> <li>Bronze benefits plus</li> <li>Four 10x10 booth spaces</li> <li>Four registrations, including welcome reception &amp; farewell gala dinner</li> <li>Two minutes at a reception to speak about your organization</li> <li>Full page program advertisement</li> <li>Special event signage with logo</li> </ul>	<p><b>BRONZE – \$2,500+</b></p> <ul style="list-style-type: none"> <li>Friends benefits plus</li> <li>Recognition on event signage</li> <li>1/2 page program advertisement</li> </ul>
<p><b>GOLD – \$10,000+</b></p> <ul style="list-style-type: none"> <li>Bronze benefits plus</li> <li>Two 10x10 booth spaces</li> <li>Four registrations, including welcome reception &amp; farewell gala dinner</li> <li>1/2 program advertisement</li> <li>Organization logo on cover of Program Booklet</li> <li>Special event signage with logo</li> </ul>	<p><b>FRIEND – \$1,000+</b></p> <ul style="list-style-type: none"> <li>Organization logo &amp; hotlink on event website</li> <li>Acknowledgment in Program Booklets</li> </ul>
<p><b>SPONSOR SPECIFIC ITEMS:</b> You may also sponsor specific items, such as the lanyards or pens that each participant will receive, an internet kiosk with your company's logo, or offer a hosted break, complete with signage promoting your company! We will work with your organization to create a customizable sponsorship package that meets your needs.</p>	

**Additional Information**

For more information or to become an Exhibitor or Sponsor, please contact Christopher Whited, Sponsorships and Exposition Coordinator, at [whitedc@safnet.org](mailto:whitedc@safnet.org), or view our Trade Exposition and Sponsorships Booklet at [http://iufro2014.com/IUFRO\\_2014\\_Trade\\_Exposition\\_and\\_Sponsorship.pdf](http://iufro2014.com/IUFRO_2014_Trade_Exposition_and_Sponsorship.pdf)



*Opportunities for*  
**STUDENTS & VOLUNTEERS**

Abstract Submissions for Special Student Technical Sessions may be submitted by 31 March 2014 through [www.iufro2014.com](http://www.iufro2014.com)

#### Volunteers (non-student)

Volunteers will help to ensure the Congress is a wonderful experience for all of our delegates. Please consider lending your expertise to the IUFRO World Congress as a volunteer. Many helping hands are needed for field trip, registration, and directional assistance, among other opportunities. Volunteer shifts will average at about 4 hours, but there is flexibility to meet your needs. Volunteers will receive a special edition 2014 World Congress t-shirt and are invited to join us for our volunteer celebration breakfast on 9 October 2014. Contact Vicki Berrett, Co-Chair of the Congress Services Subcommittee, at [vberrett@fs.fed.us](mailto:vberrett@fs.fed.us) for more information or to sign up.

#### Student Volunteer Opportunities

As a student participating in the Congress, you have many opportunities to learn about the latest in forestry, interact with world-class researchers and scientists, and even present your own research. As a student, you can also volunteer. Students who volunteer at the Congress have the opportunity to have their registration fees waived, among other benefits. Students must be willing to commit 16 hours of volunteer time during the Congress to be eligible for waived registration fees. Student volunteers also get a special edition 2014 World Congress t-shirt and are invited to join us for our volunteer celebration breakfast on 9 October 2014. This is a great resume-builder and a good way to see behind-the-scenes at the Congress.

#### There are many opportunities to help:

- Meet and greet IUFRO delegates at the airport as they arrive into Salt Lake City.
- Help with field trips throughout Utah.
- Provide roaming technical assistance or directions in the Convention Center.
- Assist with social media.
- Assist with registration needs.
- ...And more!

#### Abstract Submissions for Special Student Technical Sessions

There will also be a special opportunity for students to present a 3-minute summary of their BSc, MSc or PhD thesis work. Further details will be available in early 2014. Abstracts may be submitted by 31 March 2014 through a special online registration system at <http://iufro2014.com>. Submissions that are not accepted for presentation will be offered a poster presentation. Examples of three-minute presentations may be found at <http://threeminutethesis.org/>. There will also be opportunities for students to present their research during special students sessions on the state of the exhibit hall.

# Congress REGISTRATION

Registration begins 30 November 2013. All registration will occur online. Early bird registration closes on 30 April 2014. All oral and poster presenters and any delegates interested in applying for the Scientist Assistance Program must register by this date.

Students who wish to volunteer must still pay the registration fee. Once you have completed the volunteer requirements, your registration fee will be refunded. Students must be able to provide proof of enrollment at a college or university.

Save on registration!  
Sign up during the  
early bird registration  
time period ending on  
30 April 2014. Register  
at [www.iufro2014.com](http://www.iufro2014.com)

## Payment Methods

Online registration will support payments by major credit cards and by wire/bank transfer.

## Confirmations

An automatic email will be sent to the email address associated with your online registration immediately following the completion of your registration, acknowledging it has been received. Email confirmation of your registration will be provided after the payment has been processed.

Should you have problems registering, please contact X-CD Technologies at: [support@xcdsystem.com](mailto:support@xcdsystem.com).

## Refunds

Requests for registration refunds must be processed prior to 5 June 2014 for a full refund, minus a \$50 transaction fee (exceptions made for visa denials). All requests must be submitted in writing, via email, fax, or postal mail. No refunds will be issued after 5 June 2014, with the exception of visa denials. We will issue full refunds until 8 September 2014 for those that are denied a visa to enter the U.S., provided the registrant can provide proof of declination from the U.S. State Department/U.S. Embassies. Please note that you are responsible for cancelling any other reservations (airfare, hotels, etc.) you may have made in preparation for the conference. IUFRO Congress hosts are not responsible for any fees associated with those cancellations. More details on the refund policy will be available at <http://iufro2014.com/registration> in October 2013.

## Registration Fees

	Early-Bird	Regular	On-Site
<b>Developed Country (IUFRO Member)</b>	\$850	\$1,100	\$1,250
<b>Developed Country (Non-Member)</b>	\$1,000	\$1,250	\$1,350
<b>Developed Countries &amp; Countries in Transition (IUFRO Member)</b>	\$550	\$700	\$850
<b>Developed Countries &amp; Countries in Transition (Non-Member)</b>	\$650	\$800	\$900
<b>Accompanying Persons</b>	\$250	\$350	\$400
<b>Students</b>	\$150	\$200	\$200
<b>Virtual Delegate*</b>	\$200	\$250	\$250

## Registration Fees Include:

Program Details	Full Registrant	Accompanying Persons	Virtual Delegate
Access to Opening & Closing Ceremonies	X	X	X
Program Book	X		e-version
Abstracts Publication	X		e-version
Access to Plenary Sessions	X		X
Access to Sub-Plenary & Technical Sessions	X		
In-Congress Tour	X	X	
Entry to Trade Exhibition	X	X	
Welcome Reception	X	X	
Farewell Gala Event	X	X	
Break Refreshments	X		
Congress Kit & Satchel	X		
Trade Exhibition Grand Opening	X	X	
Access to SAF/CIFF Scientific Program Sessions	X		
University Sponsored Alumni Reception (where applicable)	X		
Accompanying Persons Program		X	

# Salt Lake City, USA TRAVEL INFORMATION



## Downtown Salt Lake City Hotels:

1. Salt Lake Marriott Downtown at City Creek ..... \$172
2. Hilton Salt Lake City Center ..... \$169
3. Radison 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 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

## U.S. Visa Requirements

Many of our delegates will require visas to enter the United States. Visas are issued by the U.S. State Department and information can be found at: <http://travel.state.gov/visa/>.

## How to obtain a visa for Visa Waiver Program countries

If your country participates in the Visa Waiver Program, you are not required to obtain a visa prior to your visit. Currently, 37 countries participate in the Visa Waiver Program, as shown below:

- Andorra
- Australia
- Austria
- Belgium
- Brunei
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Japan
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Malta
- Monaco
- The Netherlands
- New Zealand
- Norway
- Portugal
- San Marino
- Singapore
- Slovakia
- Slovenia
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- United Kingdom

Even though you do not need a visa if you are from one of these countries, you must be authorized under the Electronic System for Travel Authorization. Further information and the application may be found at [http://cbp.gov/xp/cgov/travel/id\\_visa/esta/](http://cbp.gov/xp/cgov/travel/id_visa/esta/).

## How to obtain a visa for Non-Visa Waiver Program countries

If your country does not participate in the Visa Waiver Program, you must apply for a visa prior to entering the United States. Most delegates will be eligible for a B-1/B-2 visa (business/tourist visa). Some will be eligible for other types of visas. It is important to learn about what visa you need to enter the United States. You may apply for a visa (usually) no more than 60 days in advance of your travel date. After you have registered and provided payment for the IUFRO World Congress, a visa support letter will be automatically generated in your name, which you may use during your application. For more information on obtaining a visa, please visit [travel.state.gov/visa](http://travel.state.gov/visa).



## Airline Partnership - SkyTeam

The airlines of SkyTeam, Official Alliance Network for our event, offer attractive airfares for participants, with discounts of 5%-15% depending on your flight.

SkyTeam comprises 19 leading international airlines: Aeroflot, Aerolíneas Argentinas, Aeroméxico, Air Europa, Air France, Alitalia, China Airlines, China Eastern, China Southern, Czech Airlines, Delta Air Lines, Kenya Airways, KLM Royal Dutch Airlines, Korean Air, Middle East Airlines, Saudia, TAROM, Vietnam Airlines and Xiamen Air.

To book your travel and benefit from these discounted fares please visit [www.skyteam.com/GlobalMeetings](http://www.skyteam.com/GlobalMeetings) and enter the IUFRO World Congress Event ID: 2460S

## Accommodations

Hotel room blocks have been negotiated to obtain special rates for Congress participants. Different levels of accommodations (from five star hotels to budget accommodations) will be offered. All hotels are within walking distance to the Congress venue. Lodging selection will occur during the registration process, or you can book directly through the Congress website later this year. Room rates will be based on single/double occupancy. Additional fees may apply for triple/quadruple occupancy. Please ensure you use these processes to book your rooms so you can access these special rates (ranging from \$119/night to \$172/night). \* Per diem rates are available with federal/state ID.

\*The hotel block is subject to change. By booking during your registration process you are guaranteed to get a room within walking distance of the Convention Center at a special Congress rate.

The Crystal Inn is the recommended hotel for students attending the Congress. Salt Lake is home to a variety of hostels for the traveler on a tight budget but these are not part of or guaranteed in our discounted room block.

# IUFRO HEADQUARTERS & STRUCTURE

## Testimonials from IUFRO Members:

“For 30 years I have been a member of IUFRO. I benefited tremendously in terms of my research. I am certain that without IUFRO, I would not have obtained the rank of professor at my university!”

“As a member, I gain some knowledge a step further by exposure to the global forest-related research and in contact with other members of the Research Group from other countries.”

[www.iufro.org](http://www.iufro.org)

## About IUFRO

Established more than a hundred years ago (1892), the International Union of Forest Research Organizations is today's only global network for forest science cooperation. It is a non-profit, non-governmental scientific organization aiming to bring together and share valuable scientific knowledge, and focuses on promoting international cooperation in forest-related research.

Enhancing the understanding of the ecological, economic, and social aspects of forests and trees, IUFRO disseminates scientific knowledge to strategic stakeholders and decision-makers to contribute to forest policy and on-the-ground forest management.

### Becoming a Member

IUFRO unites 15,000 scientists in 600+ Member Organizations, and in over 120 countries.

Scientists with similar interests working under different economic, political, and environmental conditions spread over nine permanent Divisions, sub-divided in Research Groups and Working Parties, as well as a number of Task Forces that are established for a limited period of time.

Application forms and more information about membership can be obtained from the IUFRO Secretariat and Website. Benefits of membership are listed at <http://www.iufro.org/membership/>.

### The IUFRO membership fee structure is based on an adapted World Bank country classification:

- Member Organizations pay a basic yearly fee of 118 EURO (low-income), 236 EURO (lower middle-income), 354 EURO (upper middle-income), or 472 EURO (high-income).
- In addition, each Member Organization pays 118 EURO for every 10 scientists listed on the application form. Thus, the minimum fee for any Member Organization is 236 EURO.
- Associate Members pay 48 EURO (for low-income and lower middle-income economies), and 96 EURO (for upper middle-income and high-income economies) per year.

## IUFRO Structure

### SENIOR OFFICEHOLDERS

#### President

**Niels Elers Koch**

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#### Vice-President Divisions

**Michael Wingfield**

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#### Vice-President Task Forces, Special Programmes, Projects and IUFRO-led Initiatives

**Su See Lee**

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#### Immediate Past President

**Don K. Lee**

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#### Executive Director

**Alexander Buck**

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#### IUFRO Headquarters Host Country Representative

**Gerhard Mannsberger**

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## Testimonials from IUFRO Members:

“IUFRO Working Parties have been and still are my best partners in research information exchanges and communications. There are no other organizations in the world that can provide such opportunity.”

“IUFRO does great contribution to global forest research and conservation.”

“Thank you very much for your valuable and important services.”

### DIVISIONS

#### Coordinator Division 1

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### TASK FORCES

#### Forests for People

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#### Biodiversity and Ecosystem Services

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#### Forests and Climate Change

##### **Markku Kanninen**

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## Appendix A. Sub-Plenary Sessions

### Forests for people: Ecosystem services under pressure?

Organizers: Ulrike Pröbstl-Haider (University of Natural Resources and Life Sciences, Austria) & Perry Brown (University of Montana, USA)

### Cultural values, quality of life and forest landscapes

Organizer: Mauro Agnoletti (University of Florence, Italy)

### Forest foods, medicines and human health

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)

### Policy learning for multi-level governance

Organizers: Daniela Kleinschmit (Swedish University of Agricultural Sciences) & Ben Cashore (Yale University, USA)

### Resilience of forest ecosystem services to changing disturbance regimes

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

### The importance of quantifying uncertainty in managing forests

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)

### Energy from trees: Technology, opportunities, and challenges

Organizers: Woodam Chung (University of Montana, USA) & Hans Heinimann (Swiss Federal Institute of Technology in Zurich, Switzerland)

### Forest biodiversity, ecosystem services and human well-being – harnessing biodiversity for adaptation to global change

Organizers: Bryan Finegan (CATIE, Costa Rica), Robert Jandl (Research and Training Centre for Forests, Natural Hazards and Landscape, Austria) & JP Skovsgaard (Swedish University of Agricultural Sciences)

### Integrating the economics of ecosystem services into sustainable forest management

Organizers: Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi State University, USA) & Lidija Zadnik-Stirn (University of Ljubljana, Slovenia)

### Advances in large-scale forest inventories to support the monitoring and the assessment of forest biodiversity and ecosystem services

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, USA)

### Biodiversity and ecosystem services in planted forests

Organizers: Eckehard Brockerhoff (Scion/New Zealand Forest Research Institute), Hervé Jactel (INRA, France) & Peter Freer-Smith (Forest Research, UK)

### Forests, water, and people

Organizers: Liu Shirong (Chinese Academy of Forestry), Ge Sun (U.S. Forest Service, USA) & Tony Simons (World Agroforestry Centre, Kenya)

### Forest health in a changing world

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

### Stemming invasions of forest insects and pathogens: Research supporting pathway risk management and phytosanitary policy

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

### The future of our forests

Organizers: William Nikolakis & John Innes (University of British Columbia, Canada)

### Historical responses of research to global forestry issues

Organizer: Jeffery Burley (University of Oxford, UK)

## Appendix B. Technical Sessions

### Forests for People

#### Forests and human wellbeing: Life satisfaction and behavioral approaches

Organizers: Shashi Kant (University of Toronto, Canada), Sen Wang (NRCAN-Canadian Forest Service), Martin Hostettler (Cycad Inc., Switzerland) & Peter Deegen (Technische Universität Dresden, Germany)

#### Forests and human health: The role of research towards evidence-based practice

Organizers: Takahide Kagawa (Forestry and Forest Products Research Institute, Japan) & Liisa Tyrväinen (Finnish Forest Research Institute)

#### The value and challenges of integrating food and medicinal forest products into forest management

Organizers: James Chamberlain (U.S. Forest Service, USA), Carsten Smith-Hall (University of Copenhagen, Denmark) & Tytti Sarjala (Finnish Forest Research Institute)

#### Resilience and identity with urban forests: A landscape system approach

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)

#### Challenges and opportunities in forest management and utilization in rapidly changing Asian economies

Organizers: Ajith Chandran, Lianzhen Xu, Weiye Wang & Monika Singh (University of British Columbia, Canada)

#### Forest-dependent community development

Organizer: Tuija Sievanen (Finnish Forest Research Institute)

#### The social outcomes of community forestry: What do we know and how do we know it?

Organizers: Susan Charnley (U.S. Forest Service) & Rebecca McLain (Portland State University, USA)

#### Small-scale and community forestry for people, biodiversity and ecosystem services

Organizers: John Herbohn (The University of

Queensland, 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)

#### Communities, forests, forest industries and the social licence to operate

Organizers: Peter Edwards (Swedish University of Agricultural Sciences), Justine Lacey & Kieren Moffat (CSIRO, Australia)

#### Establishing social institutions for co-management of public forest lands

Organizers: Jamie Barbour (U.S. Forest Service), Cassandra Moseley (University of Oregon, USA) & Susan Charnley (U.S. Forest Service)

#### American Indian forestry

Organizer: Donald Motanic (Intertribal Timber Council, USA)

#### Participatory protected area management at the human needs and sustainable wildlife conservation interface

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)

#### Innovative planning and managing approaches for sustainable tourism in forests and natural areas

Organizers: Taylor Stein (University of Florida, USA), Peter Fredman (Mid Sweden University, Sweden), Nobuhiko Tanaka, Tokai University, Japan) & Liisa Tyrväinen (Finnish Forest Research Institute)

#### Integrating landscape protection, nature-based recreation and tourism, and rural development

Organizer: Tuija Sievanen (Finnish Forest Research Institute)

#### Global changes and nature-based recreation and tourism

Organizer: Tuija Sievanen (Finnish Forest Research Institute)

#### The future of recreation in forests and other nature areas

Organizers: Peter Fredman (Mid-Sweden University), Frank S. Jensen (University of Copenhagen, Denmark), Tuija Sievänen (Finnish Forest Research Institute) & David Edwards (Forest Research UK)

### Ethics and values in relation to forest, wildlife and recreation management

Organizers: Christian Gamborg & Frank Søndergaard Jensen (University of Copenhagen, Denmark)

### The role of science in sustaining wilderness places and human relationships with wilderness

Organizer: Alan Watson (Leopold Institute-U.S. Forest Service)

### Linking landscape, forests and people: The historical roots of biocultural diversity

Organizers: Mauro Agnoletti (University of Florence, Italy), Jinlong Liu (Renmin University of China) & Steven Anderson (Forest History Society, USA)

### Value of traditional knowledge for sustainable forest management

Organizers: Yeo-Chang Youn (Seoul National University, Republic of Korea), Jinlong Liu (Renmin University of China), William Armand Mala (University of Yaounde, Cameroon) & Ronald Trosper (University of Arizona, USA)

### Wood and forest culture: merging the past with the present

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

### On farm trees: Towards the promotion and development of a traditional or local silviculture in tropical and subtropical forest regions

Organizers: William Armand Mala (University of Yaounde, Cameroon), Jinlong Liu (Renmin University of China), Steven Anderson (Forest History Society, USA) & Yeo-Chang Youn (Seoul National University, Republic of Korea)

### Coppice forests – a tradition with future

Organizer: Gero Becker (Albert-Ludwigs-University Freiburg, Germany)

### Forests under pressure: Prerequisite conditions for forest-related sustainable development

Organizer: Pia Katila (Finnish Forest Research Institute)

### Transitions to sustainable forest management: Economic, social and cultural parameters

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)

### Smallholders and forest landscape transitions: Locally devised development strategies of tropical America

Organizers: Benno Pokorny (University of Freiburg, Germany) & Wil de Jong (Kyoto University, Japan)

### Reforming forest tenure and governance for mitigating climate change and improving people's livelihoods

Organizers: Runsheng Yin (Michigan State University, USA) & Shashi Kant (University of Toronto, Canada)

### Impact of tenure arrangements on forests, livelihoods and gender dynamics

Organizers: Maria Ojanen (CIFOR, Indonesia), Purabi Bose (CIAT, Colombia), Bimbika Sijapati Basnett (CIFOR, Indonesia) & Priyanka Bhalla (Lee Kuan Yew School of Public Policy, Singapore)

### International to local forest governance: taking stock of political theories, methodologies and research findings

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)

### Ineffective international forest policy? The role of forest information, international law and politics

Organizers: Lukas Giessen (University of Goettingen, Germany), Georg Winkel (University of Freiburg, Germany), Christoph Kleinn & Peter-Tobias Stoll (University of Goettingen, Germany)

### The knowledge that counts – analyzing science policy interactions in forest policy

Organizers: Michael Böcher (Georg-August-University Goettingen, Germany) & Georg Winkel (University of Freiburg, Germany)

### Achieving policy integration across fragmented domains: Forest policy perspectives

Organizers: Karl Hogl (University of Natural Resources and Life Sciences, Austria) & Daniela Kleinschmit (Swedish University of Agriculture Sciences)

### Innovative forest and environmental legislation for better diversity

Organizers: Peter Herbst (Villach, Austria) & Rastislav Sulek (Zvolen Technical University, Slovak Republic).

### Richer economies, better environmental

### policies? Analyzing the “environmental question” in forest policy in OECD countries

Organizers: Georg Winkel (University of Freiburg, Germany), Cassandra Moseley (University of Oregon, USA) & Metodii Sotirov (University of Freiburg, Germany)

### Forestry education serving science and practice

Organizers: Piotr Paschalis-Jakubovicz (Warsaw University of Life Sciences, Poland), Siegfried Lewark (University of Freiburg, Germany) & Yemi Adeyeye (IFSA/Bangor University, UK)

### The social education of foresters

Organizers: Lisa Hansen (IFSA/University of British Columbia, Canada) & Louise Fortmann (University of California at Berkley, USA)

### From data to knowledge, geospatial tools and information access

Organizers: Carla Heister (Yale University, USA), Dave Vanderzanden (U.S. Forest Service), Gillian Petrokofsky (Oxford University, UK) & Kevin Megown (U.S. Forest Service)

### Knowledge exchange and communication of forest research for human and community well-being

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)

### How to make forest science available for all? Publishers', editors', and authors' challenges

Organizers: Pekka Nygren (Finnish Society of Forest Science) & Eeva Korpilähti (Finnish Forest Research Institute)

## Forest Biodiversity and Ecosystem Services

### The future of ecosystem services from forests

Organizers: William Nikolakis & John Innes (University of British Columbia, Canada)

### Urban forest diversity and ecosystem services

Organizers: Rachel Leibowitz (International Society of Arboriculture, USA) & David Nowak (U.S. Forest Service)

### Providing ecosystem services under climate change: Community of practice of forest decision support systems

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)

### Long-term forest research on forest ecosystem management

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)

### The benefits of introducing the ecosystem service concept in forest management and planning at different spatial scales

Organizers: Sandra Luque (IRSTEA, France) & Christine Fürst (ZEF Uni Bonn, Germany)

### Research and management implications of the economics of ecosystem services

Organizers: Donald Hodges (University of Tennessee, USA), Donald Grebner (Mississippi State University, USA) & Runsheng Yin (Michigan State University, USA)

### Silvicultural practices to facilitate forest restoration

Organizers: Byung Bae Park (Korea Forest Research Institute, Republic of Korea), Palle Madsen (University of Copenhagen, Denmark) & Bryan Finegan (CATIE, Costa Rica)

### What future for tropical silviculture?

Organizers: Robert Nasi (CIFOR, Indonesia) & Plinio Sist (CIRAD, France)

### How does biodiversity help to manage high-value timber species, and vice-versa?

Organizers: Sheila Ward (Mahogany for the Future, Puerto Rico/USA), Emmanuel Opuni-Frimpong (Forest Research Institute of Ghana) & Nicholas Brokaw (University of Puerto Rico)

### Forest management in montane communities.

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)

### Oak regeneration to maintain biodiversity around the world

Organizers: Kurt Gottschalk & Brian Lockhart (U.S.

Forest Service), Aytekin Ertas (Istanbul University, Turkey) & Eduard Hochbichler (University of Natural Resources and Life Sciences, Austria)

### Ecosystem services provided by planted forests

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)

### Forest ecosystem services contributing to agriculture

Organizers: Kimiko Okabe (Forestry and Forest Products Research Institute, Japan) & Ian Thompson (NRCAN-Canadian Forest Service)

### Contribution of genetics and genomics to conservation and sustainable management of forests under changing environmental conditions

Organizers: Om Rajora (University of New Brunswick, Canada) & Wickneswari Ratnam (Universiti Kebangsaan Malaysia)

### Salamanders: World icons of aquatic biodiversity in forests

Organizer: Deanna Olson (U.S. Forest Service)

### Ecology and dynamics of dead wood dependent species at multiple trophic levels – Promoting natural pest control in managed forests or increasing hazards?

Organizers: Stephen Pawson (Scion, New Zealand), Kimiko Okabe (Forestry and Forest Products Research Institute, Japan) & Antoine Brin (University of Toulouse, France)

### Forests, roots and soil carbon

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)

### Dynamics of lava forest ecosystem

Organizers: Jung-Hwan Park & Hyung-Soon Choi (Korea Forest Research Institute, Republic of Korea) & Waimun Ho (Forest Research Institute of Malaysia)

### Radioactive contamination in forest ecosystems and safe uses of forest products

Organizer: Masamichi Takahashi (Forestry and Forest Products Research Institute, Japan)

## Forests and Climate Change

### Climate Change: A driver for land-use change and adaptive forest management on six continents

Organizers: JP 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)

### From understanding drivers to gaining leverage at the tropical forest margins: 20 years of ASB Partnership

Organizers: Peter Akong Minang, Elizabeth Kahurani & Joyce Kasyoki (World Agroforestry Centre, Kenya)

### Boreal at risk: Integrative science as a strong foundation for public policy development

Organizers: Deepa Pureswaran, Werner A. Kurz, Louis De Grandpré (NRCAN-Canadian Forest Service) & Philip G. Comeau (University of Alberta, Canada)

### Forests, fire and climate change dynamics

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)

### Managing forest for fire in a changing climate

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

### Vegetation zone shifts in response to climate change

Organizers: Constance Millar (U.S. Forest Service) & Pavel Cudlin (Global Change Research Centre, Academy of Sciences of the Czech Republic)

### Forest resistance and resilience in the face of natural hazards

Organizers: Alexia Stokes (National Institute for Environmental and Agricultural Science and Research, France), Frank Telewski (Michigan State University, USA) & Thierry Fourcaud (CIRAD, France)

### New developments and use of the UN-sponsored Global Forest Resource Assessment

Organizers: Gregory Reams (U.S. Forest Service) & Ken MacDicken (UN-FAO, Italy)

### Quantifying uncertainty in forest measurements and models: Approaches and applications

Organizers: George Gertner (University of Illinois, USA), Bogdan Strimbu (Louisiana Tech University,

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#### Forest biomass and carbon inventory on successive occasions

Organizers: Bianca Eskelson (Oregon State University, USA), Cris Brack (Australian National University) & Teresa Fonseca (University of Trás-os-Montes e Alto Douro, Portugal)

#### Remote sensing in carbon balance evaluation and monitoring

Organizers: Tomasz Zawila-Niedzwiecki (Forest Research Institute, Poland), Mathias Schardt (Joanneum Research, Austria) & Radomir Balazy (Forest Research Institute, Poland)

#### Using multi-source remotely sensed data and nearest neighbor techniques to improve inference for natural resource applications.

Organizer: Temesgen Hailemariam (Oregon State University, USA)

#### Implementation of silvicultural treatments and their effects into forest growth models

Organizers: Margarida Tomé (Technical University of Lisbon, Portugal) & JP Skovsgaard (Swedish University of Agricultural Sciences)

#### National forest sector greenhouse gas inventories following IPCC guidance and guidelines: Requirements, methods, and national examples

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

#### Complying with the IPCC good practice guidance for tropical carbon stock inventories

Organizer: Ronald E. McRoberts (U.S. Forest Service)

#### Advances in forest carbon measurements and monitoring for building REDD+ MRV systems

Organizers: Yasumasa Hirata (Forestry and Forest Products Research Institute, Japan) & Andrew Lister (U.S. Forest Service)

#### Forest management for adaptation to climate change

Organizers: Rodney Keenan (The University of Melbourne, Australia), Carina Kesitalo (Umea University, Sweden), Kalame Fobissie (WWF Central Africa, Cameroon) & Guangyu Wang (University of British Columbia, Canada)

#### Adaptive forest management under climate change – networking from local to global scales in the temperate zones

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

#### Forest management options to tackle climate change

Organizers: Hubert Hasenauer (University of Natural Resources and Life Sciences, Austria), Frits G. Mohren (University of Wageningen, the Netherlands) & Jean-Luc Peyron (Ecofor, France)

#### Forest owners and climate change adaptation

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)

#### Sustainable management of spruce dominated ecosystems in response to climate change

Organizers: Phil Comeau (University of Alberta, Canada), Bill Mason (Forest Research, UK), Ulf Johansson & Bjorn Hanell (Swedish University of Agricultural Sciences)

#### Tropical forest wetlands, climate, and land-use change: Adaptation and mitigation opportunities

Organizers: Richard Birdsey & Randall Kolka (U.S. Forest Service), Daniel Murdiyarto (CIFOR, Indonesia) & Boone Kauffman (Oregon State University, USA)

#### Novel ecosystems and intervention: Adaptation to climate change

Organizers: John Stanturf (U.S. Forest Service) & Palle Madsen (University of Copenhagen, Denmark)

#### Understanding the relationships among biodiversity, carbon, and people for REDD+ forests: The importance of environmental and social safeguards

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)

#### Addressing the drivers of deforestation: Exploring synergies between REDD+ and forest policy

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)

#### Gender, participation and climate change

Organizers: Bimbika Sijapati Basnett, Esther Mwangi (CIFOR, Indonesia), Peter Cronkleton (CIFOR, Peru) & Terry Sunderland (CIFOR Indonesia)

#### Desertification, land degradation and drought

Organizer: Hoduck Kang (Dongguk University, Republic of Korea)

### Forest and Water Interactions

#### Land use/land cover change and hydroecology: Consequences at variable spatial scales.

Organizers: Latif Kalin (Auburn University, USA), Yusuf Serengil (Istanbul University, Turkey), Xiaohua (Adam) Wei (University of British Columbia, Canada) & Amy Daniels (U.S. Forest Service)

#### Long-term watershed studies: What have we learned about eco-hydrological functioning

Organizers: Shirong Liu (Chinese Academy of Forestry) & Xiaohua Wei (University of British Columbia, Canada)

#### Hydroecological studies in the Mediterranean region

Organizers: Yusuf Serengil (Istanbul University, Turkey), Xiaohua Wei (University of British Columbia, Canada) & Ferhat Gokbulak (Istanbul University, Turkey)

#### Managing forests and forest uses to protect and provide clean water

Organizers: Jean-Michel Carnus (National Institute for Environmental and Agricultural Science and Research, France) & Richard Harper (Murdoch University, Australia)

#### Role of disturbance in maintaining and stimulating aquatic biological diversity in temperate forest ecosystems

Organizer: Robert Danehy (National Council for Air and Stream Improvement, USA)

#### Impacts of forest roads on water resources and aquatic habitat

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

#### Sustaining riparian biodiversity and ecosystem services in a changing climate

Organizers: Kathleen Dwire (U.S. Forest Service), Michael Pollock (National Oceanic and Atmospheric Administration, USA) & Chris Frissell (University of Montana, USA)

#### Ecology and management of coastal forests and mangroves

Organizers: Ariel E. Lugo (U.S. Forest Service) & Daping Xu (Chinese Academy of Forestry)

#### Conceptual frames and research strategies for integrated studies of adaptation to drought

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

### Forest Biomass and Bioenergy

#### Sustainable biomass for energy and industrial raw materials

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)

#### Biobased products and bioenergy

Organizers: Jianchun Jiang & Fuxiang Chu (Chinese Academy of Forestry), Dominique Lachenal (Grenoble INP-Pagora, France) & Jingxin Wang (West Virginia University, USA).

#### Forest biomass supply chains: Practice, economics, and carbon balance

Organizers: Nate Anderson (U.S. Forest Service), Gustaf Egnel (Swedish University of Agricultural Sciences) & Woodam Chung (University of Montana, USA)

#### Emerging technologies for forest resource assessment and genetic improvement

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)

#### Genomics and biotechnology for improvement of woody energy crops

Organizer: Carl Douglas (University of British Columbia, Canada)

#### Environmental impacts of intensive management of forest soils for timber and bioenergy production.

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)

#### Evaluation of environmental impacts of production and use of wood products and wood energy

Organizers: Richard Bergman (U.S. Forest Service) & Adam Taylor (University of Tennessee, USA)

#### Global and regional deployment of Biomass & CCS (BECCS): Reconciling top-down and bottom-up approaches and REDD+ BECCS Nexus

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)

### Forests and Forest Products for a Greener Future

#### Innovation in the forest sector: maximizing the sector's competitiveness

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)

#### The interface between quantitative forest sector modeling and policy analysis: What can be improved?

Organizers: Birger Solberg (Norwegian University of Life Sciences), Daniela Kleinschmit (Swedish University of Agriculture Sciences) & Clark C. Binkley (International Forestry Investment Advisors, USA)

#### Intensive or ecosystem-based forest management – impact on yield, wood quality and economic return?

Organizers: Pekka Saranpää (Finnish Forest

Research Institute), Alexis Achim (Laval University, Canada), Robert Deal (U.S. Forest Service) & John Moore (Scion, New Zealand)

#### Contributions of business and marketing to a greener future

Organizers: Eric Hansen (Oregon State University, USA), Tom Hammett (Virginia Tech, USA) & Birger Solberg (Norwegian University of Life Sciences)

#### Gender and forestry value chains

Organizers: Herry Purnomo & Bimbika Sijapati Basnett (CIFOR, Indonesia), Sola Phosiso (CIFOR, Kenya) & Pablo Pacheco (CIFOR, Indonesia)

#### Precision land-use management - state and perspectives

Organizers: Hans R. Heinimann (ETH Zurich, Switzerland) & Woodam Chung (University of Montana, USA)

#### Forest operations engineering and management - the way ahead

Organizers: Hans R. Heinimann (ETH Zurich, Switzerland) & Woodam Chung (University of Montana, USA)

#### Planted forests: meeting future global forest product needs sustainably

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)

#### New uses for wood

Organizers: William Nikolakis & John Innes (University of British Columbia, Canada)

#### Applications of nanotechnology and biotechnology in forest products research

Organizer: Andrew Wong (Universiti Malaysia Sarawak, Malaysia)

#### Bio-based composite and engineered products from wood and non-wood forest resources

Organizer: Andrew Wong (Universiti Malaysia Sarawak, Malaysia)

#### Emerging green and sustainable alternatives to classical wood preservative to protect forest products

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)

#### Recovery, reuse, and recycling of wood products for a greener future

Organizers: Phil Araman (U.S. Forest Service), Robert Bush & Robert Smith (Virginia Tech, USA)

#### Forest resources assessment for non-wood forest products

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)

#### Greening society and non-wood forest product commercialisation: assessing the environmental, economic and social trade-offs

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)

#### Sustaining bamboo and rattan resources

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)

#### Impact of forest certification on sustainable forest management

Organizers: Wenming Lu (Chinese Academy of Forestry, China), Robert L. Deal (U.S. Forest Service) & John Innes (University of British Columbia, Canada)

#### Forest governance and legality of timber: Challenges of legality in practice

Organizers: Margaret Shannon (University of Freiburg, Germany), Mersudin Avdibegovic (University of Sarajevo, Bosnia-Herzegovina), Wenming Lu (Chinese Academy of Forestry) & Qiang Li (International Tropical Timber Organization, Japan)

#### Forest Health in a Changing World

##### Modeling as a tool for improving the knowledge on forest vulnerability and risk exposure in a changing world

Organizers: Alessandra De Marco (ENEA, Italy) & Salim Belyazid (Lund University, Sweden)

#### Impact and monitoring of forest pests and pathogens in a changing world

Organizers: Maartje J. Klapwijk & Johanna Boberg, (Swedish University of Agricultural Sciences) & Jolanda Roux (FABI/University of Pretoria, South Africa)

#### Monitoring emerging threats to forest health in North America across regional to national scales

Organizers: Borys Tkacz (U.S. Forest Service) & Kevin Potter (North Carolina State University, USA)

#### Forest health in changing landscapes: The roles of landscape patterns

Organizers: Kurt Riitters (U.S. Forest Service) & Peter Vogt (European Commission Joint Research Centre, Institute for Environment and Sustainability)

#### Air pollution as a factor affecting global forest health

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)

#### Ozone and forest health

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

#### Critical loads for nutritional nitrogen deposition: Progress and problems

Organizers: Sarah Jovan, Andrzej Bytnerowicz & Mark Fenn (U.S. Forest Service)

#### Changes in distributional ranges in a changing world

Organizers: Patrick Tobin (U.S. Forest Service) & Christelle Robinet (National Institute for Environmental and Agricultural Science and Research-URZF, France)

#### Is climatic change modifying the characteristics of insect damage in forests?

Organizers: Francois Lieutier (University of Orleans, France), Timothy Paine (University of California, Riverside, USA) & Rodney Keenan (University of Melbourne, Australia)

#### Mechanisms of tree defense across forest insect feeding guilds: Can a comparative approach help predict responses to climate change?

Organizers: Barbara Bentz (U.S. Forest Service) & Ken Raffa (University of Wisconsin, USA)

#### Societal impacts of invasive forest pathogen and pests

Organizers: Matteo Garbelotto (University of California at Berkeley, USA), Giles Hardy (Murdoch University, Australia) & Paolo Gonthier (University of Turin, Italy)

#### Global approaches to the biological control of invasive Eucalyptus pests

Organizers: Simon Lawson (Queensland Department of Agriculture, Fisheries and Forestry, Australia), Toni Withers (Scion, New Zealand) & Helen Nahrung (University of the Sunshine Coast, Australia)

#### Consequences of changing trophic interactions on forest insect population dynamics

Organizers: Aaron S. Weed, Carissa F. Aoki & Nina K. Lany (Dartmouth College, USA)

#### The co-evolution of insects and fungi that form symbiotic relationships and kill forest trees

Organizers: Mee-Sook Kim (Kookmin University, Republic of Korea) & Philip Cannon (U.S. Forest Service)

#### Emerging invasive forest pathogens

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)

#### Ecology and management of invasive wood boring pests in a changing world

Organizers: Juan Carlos Corley (CONICET- INTA, Argentina), Massimo Faccoli (DAFNAE-Agripolis, Italy), Michael Smith (USDA-ARS, USA) & Brett Hurley (University of Pretoria, South Africa)

#### Research on pathway risk management and phytosanitary policy to prevent invasions of forest insects and pathogens

Organizers: Eckehard Brockerhoff (Scion, New Zealand), Andrew Liebhold (U.S. Forest Service) & Jolanda Roux (FABI/University of Pretoria, South Africa)

#### Multiple risk management in planted forests

Organizers: Hervé Jactel (National Institute for Environmental and Agricultural Science and Research, France), Christophe Orazio (European Forest Institute, Finland) & John Moore (Scion, New Zealand),

#### Wood packaging materials: Strategies to control exotic pests

Organizers: Donatien Pascal Kamdem (Michigan State University, USA), Andrew Wong (Universiti Malaysia Sarawak) & Nasko Terziev (Swedish University of Agricultural Sciences)

#### Special sessions for students and young scientists

The "IUFRO Incubator"

Organizers: JP Skovsgaard (Swedish University of Agricultural Sciences), other IUFRO Divisional representatives & IFSA (International Forestry Students Association)

Five technical sessions will be organized for recently graduated students to present a summary of their BSc, MSc or PhD theses. In these sessions, each speaker is allowed only three minutes and one power point slide. Further details will be available in early 2014. Presentation title, abstract, and an indication of the preferred session may be submitted via the special registration system at <http://iufro2014.com> no later than 31 March 2014. Submissions that are not accepted for presentation will be offered a poster presentation. You can see examples of three-minute presentations at <http://threeminutethesis.org/>



with different silvicultural prescriptions. However, these estimates are based on the assumption that dry forest biomass is 50% carbon. Carbon content varies: (1) vertically and horizontally in tree stems, (2) with species, and (3) with growth rates as influenced by suppression. We demonstrate how variations in stand structure resulting from silviculture can affect carbon storage beyond the effects on stand volume or biomass. The effects of these variations are presented as a “carbon index,” where carbon concentrations due to variations in stand structure can be easily assessed.

#### Example 2

This paper evaluates the services of a subtropical evergreen broadleaved forest ecosystem in the Simian Mountain National Forest Park in Three Gorges Areas of China by using the methods of opportunity-cost and market price replacement etc. Six types of values of forest ecosystem services—water conservation, soil conservation, air purification, carbon dioxide fixation, biodiversity maintenance and tourism are calculated based on field forest resources investigation data, statistics data from a local travel agency, and related published studies and reports. The water conservation service included water yields and water quality protection; while the soil conservation service included soil immobilization, fertility preservation, and soil erosion and sediment mitigation. The results indicate that the annual gross forest ecosystem services values in this area amount to 978.24 million yuan, of which 235.5 million yuan are for water conservation service, 139.85 million yuan for soil conservation service, 193.25 million yuan for carbon dioxide fixation service, 140.34 million yuan for air purification service, 158.90 million yuan for biodiversity maintenance service, and 110.4 million yuan for tourism service. The methods for evaluating the services of subtropical evergreen broadleaved forest ecosystem and the potential factors influencing ecosystem services values are also discussed in the paper.

#### Example 3

The objective of the study was to evaluate the economic contribution of forestry activities on the Peruvian region of Ucayali. A methodology approach was designed to evaluate the economic impact at the regional scale over a 10-year long period, analyzing and identifying

the relationships among key macroeconomic indicators and forest production. The analysis of this impact was carried out from both statistical and qualitative perspectives. The study revealed that National Gross Domestic Product (GDP), per capita GDP, numbers of new business start-ups (entrepreneurship), exports rates, tax collection for central government, and decrease of the poverty and extreme poverty of Ucayali are highly correlated with forest production during the period analyzed, and that other social aspects and economic activities such as formal employment rates and the human development index (HDI), have no clear correlation with regional forest production. Positive socioeconomic impacts of forest activities are limited because a high percentage of these activities are not formal. Sustainable development policies are outlined for Ucayali region based on this study.

#### Example 4

The purpose of this research is to compare and contrast the views of building design professionals in Australia and the United States regarding environmentally responsible materials in structural building systems. Expert opinions will serve as the basis for this project. Data will be collected via group interviews of building design professionals responsible for different aspects of structural design and material selection. Group interviews will be composed of material specifiers who represent major construction markets, projects of different scales, and professionals responsible for different aspects of the specification process from the United States and Australia. Data in the U.S. was collected during 2009. Data in Australia will be collected during 2010. The focus will be on major structural materials—concrete, steel, and wood. A semi-structured questionnaire focusing on structural systems of green buildings will be used. Respondents will be asked to identify the key criteria driving the selection of structural materials, including the importance of the potential environmental impact of a material. Respondents will be asked about the role of meeting a green building standard in material selection. Themes specific to wood products will be discussed including the role of forest certification systems.

## Appendix D. IUFRO Business Sessions Booking Form

To assist with arrangements for business sessions, please complete and return this form with details of your meeting by 15 April 2014 to:

**IUFRO HEADQUARTERS** Ms. Astrid Toppel  
 Email: [toppel@iufro.org](mailto:toppel@iufro.org)  
 Facsimile: +43-1-877 0151 50  
 Postal: Marxergasse 2, 1030 Vienna, Austria

To assist with planning we would appreciate as much detail regarding your proposed meeting. Please note, meeting rooms will be provided free of charge. Any costs for audiovisual (in addition to standard room setup) will be the responsibility of the organizer.

Sessions will be held on Monday 6 October and Tuesday 7 October over the lunch break from 12:00 to 13:30 (two, 40-minute blocks) and also on the evening Tuesday 7 October from 19:00 to 20:30 (two, 40-minute blocks). If additional time beyond 40 minutes is needed, please indicate that in your request, we may be able to accommodate a few 1.5 hours sessions.

Requests are accepted on a first come, first serve basis.

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### Unit (Research Group, Working Party, Task Force Name or Number)

**Unit Coordinator Name** \_\_\_\_\_

**Position** \_\_\_\_\_

**Organization** \_\_\_\_\_

**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_ **Email** \_\_\_\_\_

**Street Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

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### Preferred Date & Time

**First Choice**     Mon 6 Oct :     12:00 – 12:40     12:50 – 13:30  
                           Tues 7 Oct :     12:00 – 12:40     12:50 – 13:30     19:00 – 19:40     19:50 – 20:30

**Second Choice**     Mon 6 Oct :     12:00 – 12:40     12:50 – 13:30  
                           Tues 7 Oct :     12:00 – 12:40     12:50 – 13:30     19:00 – 19:40     19:50 – 20:30

**Estimated Number of Participants** \_\_\_\_\_

**Other Needs or Special Requests** \_\_\_\_\_

\_\_\_\_\_  
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