Large-scale restoration initiatives to counter global loss and degradation of the world’s forests have gained significant political momentum around the world. These include the Bonn Challenge, the New York Declaration on Forests, and land net degradation neutrality (LDN) objectives set by the United Nations Convention to Combat Desertification (UNCCD) collectively aiming at hundreds of thousands of hectares of land committed for restoration by 2030.

In support of these global policy initiatives the “International Conference on Forest Landscape Restoration under Global Change: Synthesizing and Sharing Globally Available Forest-related Scientific Knowledge” was held in San Juan, Puerto Rico, in June 2017 to review and discuss state-of-the-art scientific knowledge on how to implement large-scale forest landscape restoration (FLR) on the ground.

A field tour on the El Junque National Forest highlighted research conducted by scientists at the US Forest Service International Institute of Tropical Forestry (IITF) and their collaborators over the last 75 years. The workshop involved over 60 leading scientists and experts from 29 countries, including countries in North America, Latin America, Africa, Europe, Asia and Australia. On the last day of the conference a ministerial-level policy dialogue focused on “Shaping policy for FLR implementation” took place. There ministers and government officials from 7 countries discussed policies needed for the effective implementation of forest landscape restoration on the ground.

The conference was organized by the IUFRO Task Force on Adaptation and Restoration Under Global Change, IUFRO Research Group 1.06.00 (Restoration of Degraded Sites) and the IITF. Funding was provided by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety through the IUFRO Special Programme for Development of Capacities.

The collective expertise and vast experience of the conference participants covered the full range of topics and issues that need to be considered for successful forest landscape restoration outcomes at local, regional and national scales, and under diverse ecological and socioeconomic conditions. The discussions covered areas such as learning from long-term experiences with forest landscape restoration; addressing governance challenges; participatory planning and monitoring of progress; experiences with implementation in diverse local contexts; strategies for adaptation to climate uncertainties; and options for financing and investing in restoring forested landscapes.


The 7th Forest Science Symposium held in Pietermaritzburg, South Africa, on 18-20 July, was organized by the Institute of Commercial Forestry Research (ICFR) in partnership with the Department of Agriculture, Forestry and Fisheries of the Government of South Africa and IUFRO. The three-day conference brought together about 200 forest scientists, practitioners and policy makers from South Africa, other African countries and overseas to deliberate on latest research and its application in the tree plantation sector in South Africa.

The IUFRO Special Programme for Development of Capabilities (SPDC) in collaboration with the Institute for Commercial Forestry Research (ICFR), South Africa, and the University of Oxford, United Kingdom, also organized a 3-day training workshop on systematic review in forest science, prior to the Symposium. More about the workshop: http://www.iufro.org/science/special/spdc/actproj/twsouthafrica/

During the Symposium the 70th Anniversary of the Institute of Commercial Forestry Research was celebrated with special oral and poster presentations showing the history of the institute spanning from its beginning in 1947 as Wattle Research Institute to today’s modern research facility providing research results to the South African forestry industry. In his welcome speech IUFRO President Mike Wingfield congratulated the institute on this occasion and presented an IUFRO Anniversary Certificate to Colin Dyer, the Director of ICFR.

Also visit: http://www.icfr.ukzn.ac.za/events/7th-forest-science-symposiumtue-07182017-0800

Molecular Biology of Forest Trees

Report by Shawn Mansfield IUFRO WP 2.04.06 Coordinator, Dario Grattapaglia and Armand Séguin (2.04.06 Deputy Coordinators)

The 2017 IUFRO Tree Biotechnology Conference was held in Concepción Chile from June 4-9, 2017, and was hosted by several Chilean colleagues, including Drs. Sofía Valenzuela (Chair), Claudio Balocchi, Marta Fernández, and Fernando Guerra. The conference hosted a total of 130 participants, coming from 27 countries, representing universities, research organizations, and forest companies. The meeting showcased current and emerging applications in forest biotechnology. It illustrated applications of CRISPR/CAS9 in forest trees, network analyses to understand complex biological processes, and genomic selection to improve and accelerate forest tree breeding and selection, to mention only a few.

The scientific meeting was opened by local authorities, including the Governor of the Biobío region Mr. Rodrigo Díaz Worner, Director of Research of the University of Concepción Dr. Jose Becerra, Fernando Raga, President of the National CORMA (http://www.corma.cl/about-us/what-is-corma), Mr. Rodrigo García representing the Ministry of Agriculture, and Sergio Valdés from the Forest Institute of Chile. In addition, two invited plenary talks launched the scientific program: Dr. Rafael Viciana, from the Pontificia Universidad Católica de Chile, speaking on the “Origin of Life” and Dr. Vincent Chiang, from NCSU, USA, reflecting on the “Present and future of forest biotechnology”.

The conference attracted a diverse mix of students, postdoctoral fellows, and scientists from academia and industry. This dynamic group of international scientists shared their current results and visions for the future of tree biotechnology. Support for the bi-annual gathering was drawn from a wide variety of Academia, Industry, and Government sources, and included financial support from several commercial genomic service providers.

The 2019 conference will be hosted by Dr. Ross Whetten and his colleagues at North Carolina State University, in Raleigh.
Global Scientific Assessment on Forests and Water off to a Good Start

Report by Andre Purret, GFEP Project Manager

As the world’s population is expected to grow rapidly, water will become an even more scarce resource in the future. This stresses the need to tackle the problem of water quality and availability through holistic approaches. In order to support policy and decision makers with the best available scientific information on the topic, IUFRO has been tasked by the Collaborative Partnership on Forests (CPF) to carry out a global scientific assessment on the interlinkages between forests and water in the frame of the Global Forest Expert Panels (GFEP).

Following the successful Scoping Meeting of the Expert Panel in March 2017 in Rome, Italy, the GFEP coordination team invited internationally recognized scientific experts to join the Global Forest Expert Panel on Forests and Water. The Panel convened for the first time in the elegant Lucy Cavendish College in Cambridge, United Kingdom, from 26-29 June 2017. The meeting was attended by 23 participants, including 16 Panel Members, observers and the GFEP team.

The purpose of the first Expert Panel meeting was: to introduce the Terms of Reference to Panel Members; to agree on key concepts and methodological approaches; to develop a comprehensive annotated outline of the assessment report and its chapters; to clarify the roles and specific contributions of Panel Members in their role as authors; to identify areas of expertise that require the involvement of additional scientific experts; and to refine the schedule of Panel Meetings and the assessment in general.

During the meeting Panel Members decided on chapter teams, allocated the roles of authors within the chapters and designated Prof. Irena Creed (Western University, Canada) and Prof. Meine van Noordwijk (ICRAF) as the co-chairs of the Expert Panel.

The chapter groups have started their scientific work and are expected to deliver draft manuscripts by early October 2017. The second meeting of the Expert Panel on Forests and Water will take place in Leeds, United Kingdom, on 18-20 October, 2017.

The main goal of the assessment is to contribute to the 2030 Agenda for Sustainable Development and its SDGs by exploring the interactions between SDG 6 on “water” and SDG 15 on “forests”. The outcomes will provide input to the High-Level Political Forum on Sustainable Development and its session in 2018 (HLPF 2018) and will be of high relevance also to other international forums and bodies.


AForGeN 2017 - Genetic Resources of High Mountain Forests

Report by Maria Höhn, Coordinator IUFRO WP 2.04.11

This year’s AForGeN meeting was organized in the Italian Dolomites, in Val Canali, Trentino, hosted by the staff of Parco Naturale Paneveggio and the Edmund Mach Foundation as contributing organization, on 15-17 June.

The program included scientific presentations of the AForGeN members linked to their latest scientific achievements and results, a full day’s walk into the Pale Dolomiti and finally, a half-day discussion on the status of the AForGeN-supported Silver Fir Genome Project.

Altogether 15 scientific reports were presented in the sessions on the topics of transcriptome sequencing, exome capture, epigenetics and genomics of local adaptation in alpine forest trees. The last session included presentations on recent results and ongoing projects in Abies alba genomics, adaptation, evolutionary history, genetic variation and breeding.

The closing session on 16 June was dedicated to strategic discussions on the Silver Fir Genome project. The participants agreed on the most important commitments for moving this project ahead. Primarily sequence assembly and genome annotation are planned for the next year.

Among the 30 participants, for the first time this year, researchers from Denmark, Slovenia, and Montenegro attended the meeting. At the end, the group accepted the invitation of the Slovenian colleagues to host the AForGeN 2018 workshop in the Slovenian Alps.

Further details on the meeting, the Silver Fir Genome Project and the AForGeN group are available at: [http://www.aforgen.org](http://www.aforgen.org)

This workshop was organized as part of IUFRO Working Party 2.04.11 Alpine Forest Genomics.
Invasive Forest Pathogens and Implications for Biology and Policy

Report by Julio Javier Diez Casero, Coordinator of IUFRO Working Party 7.02.02, and Tod Ramsfield, Coordinator of IUFRO Research Group 7.02.00

The meeting of IUFRO Working Party 7.02.02 Foliage, shoot and stem diseases of forest trees in Niagara Falls, Canada, on 7-11 May 2017 brought together 44 participants from 14 countries.

Meeting website: http://www.cif-ifc.org/iufroworkingparty2017/

International trade of plant material is increasing the risks to forest health worldwide. The current situation of both well-understood and emerging pathogens causing disease on foliage, shoot and stems, which threaten forest stands and nurseries was therefore a prominent issue at the meeting.

Discussions also focused on new disease reports on foliage, shoot and stem diseases worldwide and explained fungal phylogeny on foliage, shoot and stem diseases. Presenters provided insights into pathogenicity assays and control strategies for foliage, shoot and stem diseases and highlighted relevant methods and techniques for pathogen detection and control in forest ecosystems and in forest nurseries. They noted that especially the new molecular methods and techniques are of great interest for the diagnosis of quarantine organisms.

Participants concluded that new strategies to avoid the spread of invasive species should be implemented. However, despite the advances in technology, traditional forest pathology techniques are still needed for diagnostic, pathogenicity proofs or control assays.

Proceedings will be published in the SCI Journal "Forestry Chronicle" which is the journal of the Canadian Institute of Forestry. The next meeting of 7.02.02 will be held in Tuscany, Italy, in 2019 and the local organizers will be Alberto Santini and Paolo Capretti from the University of Florence.

Forest Management Models, Methods and Decision Support Systems - the SuFoRun Perspective


This international seminar focused on the presentation of models, methods and decision support systems available at SuFoRun institutions that may be used by public administrators, forest owners and industry for forest management planning in a context of global change. This seminar was part of a series of annual meetings that are being organized under the SuFoRun international R&D project (http://suforun.ctfc.cat/). It took place in State College, Pennsylvania, USA, on 19-20 January 2017 and involved 20 participants from 14 countries in Europe and America.

The seminar provided a forum that facilitated the exchange needed to advance the knowledge about forest ecosystem management. It worked well as a venue to convey to researchers the open problems that require further study and research in the key areas to be addressed by this exchange program. These encompass:

a) forest modeling to acquire knowledge about forest ecosystem dynamics and disturbance (biotic and abiotic) regimes,

b) development of forest management planning methods to address ecosystem services supply, to assess risks and to produce trade-off information and

c) development of intelligent ecosystem management decision support systems as technological platforms needed to implement models and methods and communicate information to stakeholders.

A conference is being co-organized in Squamish, Seattle, with the University of Washington in August 2017 (http://depts.washington.edu/ssafr17/) and a workshop will be organized in Spain in September 2017.

Promoting Green Jobs in the Forest Sector

On 27-28 June 2017, FOREST EUROPE, UNECE and FAO jointly organized a workshop on "Promoting Green Jobs in the Forest Sector" in Bratislava, Slovakia. There were nearly 70 participants from 18 European countries, representing FOREST EUROPE signatory countries, the UN system, the European Commission, government ministries and organizations, non-governmental organizations, science and academia, training centers, European forestry associations, private industry, forest certification organizations and others.


New IUFRO Working Party on Nitrogen and Sulfur Deposition

Excess input of nitrogen and sulfur is harmful to forest health and ecosystem functions. The new WP 7.01.10 aims, among other things, at compiling the monitoring data of nitrogen and sulfur deposition in forest areas on a global scale.

If you are interested in joining this group or participating in its activities, please visit: http://www.iufro.org/science/divisions/division-7/70000/70100/70110/ and contact the Working Party Coordinator or his deputy.

Traceless - A Film about Gentle Logging

Lars Hogböm, Coordinator of IUFRO Research Group 3.05.00 - Forest operations ecology, informs about a film that was recently produced by Heurgren Production on behalf of Skogforsk in conjunction with the Norwegian Forestry Extension Institute and by grants from the Swedish Research Council Formas. The film received two International awards, one at the World Media Festival in Hamburg in May 2017 and one at the Deauville Greenfilm festival in June 2017.

Traceless is available on YouTube: https://www.youtube.com/watch?v=xauLNORS4m0

Nominate Your Candidate for the 2017 CPF Wangari Maathai “Forest Champions” Award

The Collaborative Partnership on Forests invites nominations for this unique award that will acknowledge an inspiring individual who has improved forests and the lives of people that depend on them. The 2017 winner will be awarded USD 20,000, and will be invited to receive their award in person on 19 December 2017, at the Global Landscapes Forum to be held at the Bonn Convention Center in Bonn, Germany.

The closing date for receipt of nominations is 31 August 2017. Contact: cpf(at)un.org
Find out more at: http://wwwcpfweb.org/77034/en/

Announcements

Mondi and IUFRO Collaborate on Sustainable Business Strategies

Mondi, the international packaging and paper group, and IUFRO will co-host an open "Science meets Business" dialogue at the IUFRO 125th Anniversary Congress this September in Freiburg, Germany. The aim of this dialogue is to identify strategies and options for long-term structured collaboration between business and science towards achieving the United Nations Sustainable Development Goals (SDGs).

The Science meets Business dialogue is one out of four "Science in Dialogue" sessions that will offer opportunities to strengthen the interaction between science and important national and international policymakers and stakeholders, and to build bridges to other sectors such as food and energy from local to global levels.


Two New Working Parties in IUFRO Division 7 Forest Health

New IUFRO Working Party on Ground-level Ozone

Surface O3 is an important air pollutant, a highly reactive trace gas and the third most important greenhouse gas in terms of radiative forcing contributing to climate change. The newly established WP 7.01.09 will examine current understanding of the processes regulating tropospheric O3 and associated impacts on forests at global to local scales from both measurements and models.

If you are interested in joining this group or participating in its activities, please visit http://www.iufro.org/science/divisions/division-7/70000/70100/70109/ and contact the Working Party Coordinator or his deputies.

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Implementing Forest Landscape Restoration: A Practitioner’s Guide

Editors: John Stanturf, Stephanie Mansourian, Michael Kleine

IUFRO launched a Practitioner’s Guide to assist facilitators and coordinators of FLR initiatives at national, subnational (landscape) and local levels in implementing FLR on the ground during a major international FLR knowledge-sharing conference. The event took place in Puerto Rico from June 6-9th, 2017, and was co-hosted by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), US Forest Service, and IUFRO.

Large-scale restoration initiatives are underway to counter global loss and degradation of the world’s forests. Recognizing the challenge of implementing these high-level targets and initiatives, and realizing that obtaining results on the ground will confront many context-specific questions, a team of scientists from relevant IUFRO units has prepared this practitioner’s guide. It follows from and builds upon the IUFRO World Series “Forest Landscape Restoration as a Key Component of Climate Change Mitigation and Adaptation” (Stanturf et al. 2015). This guide addresses FLR implementation as a whole but with a view toward climate change mitigation and adaptation, because climate benefits will materialize only if FLR implementation is successful on the ground.

Learn more about the conference at http://www.iufro.org/science/special/spdc/flr/
Download the publication here: http://www.iufro.org/science/special/spdc/flr/flr/pract-guide/

Understanding the Roles of Forests and Trees for Food Security and Nutrition

New HLPE report includes findings of IUFRO Global Forest Expert Panel on Forest and Food Security

Forests and trees contribute to food security and nutrition in multiple ways. They provide wood, energy, foods and other products. They generate income and employment for many people, often the most vulnerable. These contributions vary across forest and tree systems, and depend on the way they are managed.

On 27 June 2017 the High Level Panel of Experts on Food Security and Nutrition (HLPE) - the science-policy interface of the Committee on World Food Security (CFS) - launched a report on “Sustainable Forestry for Food Security and Nutrition”. It calls for a renewed understanding of sustainable forestry in order to fully integrate the different functions of forests and trees at different spatial and temporal scales.

The report identifies four main channels through which forests and trees contribute to food security and nutrition:

- direct provision of food;
- provision of energy, especially for cooking;
- income generation and employment; and
- provision of ecosystem services essential for food production in the long term, including water regulation, soil protection, biodiversity conservation and climate change adaptation and mitigation.


Three out of nine scientific experts of the team preparing the HLPE report had also been prominently involved in writing the IUFRO-GFEP report: Team Leader Terry Sunderland (CIFOR), Bronwen Powell (Pennsylvania State University) and Bhaskar Vira (University of Cambridge). Bhaskar Vira acted as the Chair of the Expert Panel, Sunderland and Powell were among the Lead Authors of the assessment report. At the 12th session of the United Nations Forum on Forests (UNFF-12) in New York in May 2017, Bhaskar Vira, Bronwen Powell and John Parrotta (US Forest Service, IUFRO Vice-President and member of GFEP-FFS), also participated in a panel discussion on the Contributions of forests to the achievement of Sustainable Development Goal 2: Forests and Food Security.

Useful links:


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Conference Proceedings: Vegetative Propagation Technologies in Plantation Forestry
Proceedings of the 4th IUFRO Unit 2.09.02 Conference on Development and application of vegetative propagation technologies in plantation forestry to cope with a changing climate and environment in La Plata/Buenos Aires, Argentina, on 19-23 September 2016, are now available at: http://www.iufro.org/publications/proceedings/proceedings-meetings-2016/#c24929
Author(s): Bonga J.M., Park Y.-S., and Trontin J.-F. (eds.)

Conference Proceedings: Sustainable Restoration of Mediterranean Forests
Analysis and perspective within the context of bio-based economy development under global changes; conference on 19-21 April 2017, in Palermo, Italy, involving IUFRO units 1.06.00, 3.02.00, IUFRO Task Force on Forest Adaptation and Restoration under Global Change, IUFRO Task Force on Climate Change and Forest Health. Editors: Donato Chiatante, Gianniantonio Domina, Antonio Montagnoli & Francesco M. Raimondo http://www.iufro.org/publications/proceedings/proceedings-meetings-2017/#c26216

ETFRN News 58 Zero Deforestation: A Commitment to Change
This silver anniversary edition of ETFRN News brings together 40 contributions from 100 experts and practitioners. They share their experiences, and suggest ways to improve the effectiveness of zero deforestation commitments through public–private collaboration and other models. For download: http://www.etfrn.org/publications/zero+deforestation:+a+commitment+to+change

Fellowships

UBC Faculty of Forestry’s Future Forests Fellowship
The Faculty of Forestry at the University of British Columbia is giving away the largest single grant (up to $280,000) for a forestry student. The fellowship recipient will enroll in UBC Forestry’s PhD program and conduct research focused in British Columbia. Find details on requirements and timeline at: http://forestry.sites.olt.ubc.ca/files/2017/04/FFL-Guidelines-.pdf

The World Forest Institute International Fellowship
Fellowships are open to any country. Submit application for term 2 April – 2 October 2018 between: 1 July – 15 October 2017 Details: http://wfi.worldforestry.org/index/international-fellowship.html

International Scholarships for MSc in Tropical Forestry at TU Dresden, Germany
You are invited to attend the 2018 MSc Course in TROPICAL FORESTRY for which we have DAAD scholarships available. Deadline 30 October! Visit: https://tu-dresden.de/bs/umwelt/forst/inter/tropen
More at IUFRO Noticeboard: http://www.iufro.org/discover/noticeboard/fellowships-scholarships-research-funding/

Positions

Forest Entomology PhD Studentship - Emerald Ash Borer in Britain and Western Canada

Post-doctoral Position on Functioning and Resilience of Mixed-species Forests

Four PhD positions at Woody Weeds Project
Details: http://woodyweeds.org/?p=489
More at the IUFRO Noticeboard: http://www.iufro.org/discover/noticeboard/position-announcements/

IUFRO Meetings
Search our online calendar for a full list of meetings: http://www.iufro.org/events/calendar/current/
Find non-IUFRO meetings on the IUFRO Noticeboard: http://www.iufro.org/discover/noticeboard/
Also search for forest-related events in GFIS at: http://www.gfis.net

18-22 Sep 2017
IUFRO 125th Anniversary Congress
Freiburg, Germany
https://iufro2017.com/

21-25 May 2018
Ozone and Plant Ecosystems
Florence, Italy
IUFRO 7.01.00, 7.01.02, 7.01.05, 7.01.09
Contact: Elena Paoletti, elena.paoletti(at)crn.it
https://conference2018.wixsite.com/ozoneandplants

5-9 Nov 2018
International Forests and Water Conference 2018
Valdivia, Chile
IUFRO 3.05.00 – Forest operations ecology
Contact: Lars Högbom, lars.hogbom(at)skogforsk.se

Other Meetings

9-10 Nov 2017
70th Anniversary - Craiova Faculty of Agronomy
Craiova University, Romania, http://www.agro-agraria.ro/

15–19 Nov 2017
2017 SAF National Convention
Albuquerque, New Mexico
http://www.eforester.org/safconvention

28–30 Nov 2017
Non-Timber Forest Products and Bioeconomy
Rovaniemmi, Finland
Natural Resources Institute Finland (Luke), Arctic Centre of the University of Lapland
Details at: https://www.lyyti.fi/p/NTFP2017

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