

Tree-Ring Science under the Midnight Sun, University of Lapland, Rovaniemi, Finland

Fieldweek, June 6. – 12, 2010, Mekrijärvi, North Karelia

Sunday, June 13, 2010, Arktikum, Rovaniemi

15:00–(18:00) Registration, visit to Arktikum exhibitions: The Arctic in Change (Arctic Centre), Northern ways (The Provincial Museum of Lapland)

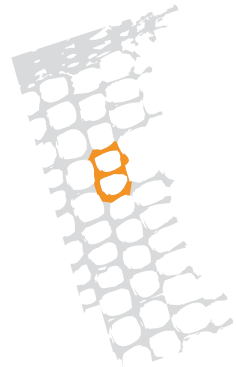
18:00–20:00 Icebreaker

Monday, June 14, 2010

08:00–09:00 Registration

09:00–09:30	<i>Edit Impiö & Iida Impiö</i>	Music; Järnefelt & Sibelius
	<i>Prof. Pasi Puttonen,</i>	Opening of the conference
	<i>Dr. Harri Mäkinen</i>	Technical announcements
09:30–10:00	<i>Prof. Kari Mielikäinen</i>	Dendrochronology in Finland: Historical milestones and current activities
10:00–10:30	<i>Prof. Juha-Pekka Lunkka</i>	Climate history of Eurasia; from greenhouses to Ice Ages
10:30–11:00	<i>Coffee break</i>	
11:00–11:30	<i>Prof. Peter M. Brown</i>	State of dendrochronology; Introspective science from retrospective records
11:30–12:00	<i>Prof. Heinrich Spiecker</i>	Climate change and management of forest ecosystems
12:00–13:30	<i>Lunch</i>	

A – Fellman hall
B – Lecture hall LS 3
C – Lecture hall LS 2
D – Castren hall



	A.1 Divergence phenomenon Session chair: <i>Achim Bräuning</i>	B.1 New techniques and statistical approaches Session chair: <i>Samuli Helama</i> Co-chair: <i>Kevin T. Smith</i>	C.1 Treeline and northern tree rings Session chair: <i>Michael Grabner</i>	D.1 Dendroarchaeology Session chair: <i>Kristof Haneca</i> Co-chair: <i>Tomasz Wazny</i>
13:30–14:00	1 The Challenges Posed by "Divergence", <i>K. Briffa</i>	1 Singular spectrum analysis as a tool to identify dendroclimatic relationships in <i>Acer saccharum</i> , <i>Betula alleghaniensis</i> , and <i>Picea rubens</i> in the northeastern United States, <i>K. T. Smith</i>	1 A Tale of 10,000 trees – The Northwestern North American Tree Ring Synthesis, <i>M. Wilming</i>	1 Trade, earthquakes and tsunami – tree-ring study on Yenikapi harbor in Istanbul, <i>T. Wazny</i>
14:00–14:20	2 Are temperature reconstructions from northern treeline still possible? <i>M. Pisaric</i>	8 DIRECT: a new approach to dendroclimatic reconstructions, <i>V. Matskovsky</i>	2 Linking cambial phenology with climate growth analysis to understand how climate influences tracheid production in <i>Picea mariana</i> , <i>B. Dufour</i>	2 Differentiation of wood provenances of Norway spruce and Silver fir in Southern Germany by dendroecological and statistical methods, <i>C. Dittmar</i>
14:20–14:40	3 Forest fire and stand dynamics in West Khentey Mountains, Mongolia <i>O. Byambamurem</i>	3 Application of Monte-Carlo methods to estimate the significance of paleoclimatic and dendroclimatic calibration-verification statistics from autocorrelated time-series, <i>M. M. Fauria</i>	3 The peculiarities of larch growth in the northern timberline, <i>A. Shashkin</i>	3 Lessons Learned from Irish Dendrochronology, <i>D. Brown</i>
14:40–15:00	4 Nonlinear growth responses of Douglas-fir in the Pacific Northwest to summer temperatures in the past decade, <i>E. H. Lee</i>	4 Process based standardisation and a comparison with a tree-growth model, <i>T. Melvin</i>	4 Potential target season-changes for different sub-arctic tree-species from 1913–2009, <i>J. Björklund</i>	4 Filling in the blanks in European dendrochronology: building a multidisciplinary research network to assess Iberian wooden cultural heritage worldwide, <i>M. Domínguez Delmás</i>
15:00–15:30	<i>Coffee break</i>			
15:30–15:50	5 A circa 9,000-year summer temperature reconstruction for the Eastern Alps: data, challenges and preliminary results, <i>K. Nicolussi</i>	5 It's all in the mix – Dendroecological archetypes provide a new perspective on inherent growth patterns, <i>C. Zang</i>	5 Tree-line dynamics, radial growth of timberline trees and alpine shrubs on the southeastern Tibetan Plateau, <i>E. Liang</i>	5 Dendrochronological investigations of medieval and post-medieval buildings in south-west England, <i>M. Hurford</i>
15:50–16:10	6 Assessing "divergence" in Swedish tree rings using data from the National Forest Inventory, <i>H. Grud</i>	6 A new approach to select the best trees for dendroclimatic analyses, <i>M. Carrer</i>	6 Spruce growth and climate sensitivity along glacial rivers of Alaska, <i>G. Juday</i>	6 Results of Research into Subfossil Oak Trunks from the Morava Basin, <i>T. Kolar</i>
16:10–16:30	7 A mid-20th century shift of Scots pine climate-response in North Norway, <i>A. J. Kirchhefer</i>	7 RCS modelling problemacy, <i>M. Timonen</i>	7 Environmental drivers and spruce growth along elevation gradient in Finnish Lapland, <i>R. Sutinen</i>	11 Identification of Iranian archeological woods by vessel shape, <i>V. Safdari</i>
16:30–18:00	Poster session I, we ask the authors of the posters PA1–PA2, PB1–PB2, PC1–PC2, PD1–PD2 to be at their posters.			
17:00–18:00	R demo / Franco Biondi, LS 9			

Tree-Ring Science under the Midnight Sun, University of Lapland, Rovaniemi, Finland

Tuesday, June 15, 2010

	A.2 Reconstruction of past climate variations Session chair: <i>Frank Berninger</i> Co-chair: <i>Kerstin Treydte</i>	B.2 Tree rings and natural hazards Session chair: <i>Markus Stoffel</i> Co-chair: <i>Brian Luckman</i>	C.2 Wood anatomy Session chair: <i>Patrick Fonti</i>	D.1 Dendroarchaeology, continues Session chair: <i>Kristof Haneca</i> Co-chair: <i>Tomasz Wazny</i>
09:00–09:30	1 Climate reconstruction from tree-rings: Advances, Developments, Challenges, <i>K. Treydte</i>	1 Dendrochronology in natural hazards research, <i>B. Luckman</i>	1 Wood anatomy and different data to study the environmental signals registered in tree-rings – overview and example of beech (<i>Fagus sylvatica</i>), <i>K. Cufar</i>	8 (-10 min) Medieval roof constructions in Flanders: built with local timber or not? <i>K. Haneca</i>
09:30–09:50	2 Combining tree-ring proxies and model simulations to reconstruct European climate, <i>J. Franke</i>	2 Magnitude-frequency relationships of debris flows – a case study based on field surveys and tree-ring records, <i>M. Stoffel</i>	2 Effect of experimental flooding on vessel area of pedunculate oak and common ash – a matter of timing, <i>U. Sass-Klaassen</i>	9 Reconstructing Al-Aqsa: dendrochronological analysis and absolute dating of timbers from Jerusalem's most sacred mosque, <i>B. Lorentzen</i>
09:50–10:10	3 Pan-European climate signals in population dynamics of subfossil oak and pine trees from mire lowlands, rivers and lakes, <i>H. H. Leuschner</i>	3 Tree-ring reconstruction of past lahar activity at Popocatepetl volcano, Mexico, <i>M. Bollschweiler</i>	3 Maximum latewood density derived from wood anatomical time series analysis, <i>H. Gärtner</i>	10 Timber trade in the Baltic area during the 13th century, <i>S. Wrobel</i>
10:10–10:30	4 Scandinavian temperature swings offset global warming, <i>U. Büntgen</i>	4 Dendrochronological reconstruction of snow avalanche activity in the southern Wasatch Mountains, Utah, USA, <i>M. Bekker</i>	4 Twenty years of Needle Trace Method, NTM, <i>R. Jalakanen</i>	7 Prehistoric dating of the salt mine Hallstatt – Austria: A problem of inter-species synchronisation, <i>M. Grabner</i>
10:30–11:00	Coffee break			
				D.2 Hydroclimatic changes Session chair: <i>Ute Sass-Klaassen</i> Co-chair: <i>Jaques Tardif</i>
11:00–11:20	5 1200 years of summer temperatures from height increment of Scots pine at the northern timberline in Fennoscandia, <i>M. Lindholm</i>	5 Recent snow-avalanche activity determined by dendromorphology and dendrochronology in Northern and Northwestern Iceland, <i>A. Decaulne</i>	5 Intra-annual variation of cell parameters of Scots pine and its association with climate throughout Finland, <i>J.-W. Seo</i>	1 (+10 min) Spring water levels reconstructed from ice-scarred trees and cross-sectional area of the earlywood vessels in tree-rings from eastern boreal Canada, <i>J. Tardif</i>
11:20–11:40	6 A 3500 years-long density chronology in Dachstein mountains, Austria – preliminary results, <i>M. Klusek</i>	6 Separating debris-flow and snow avalanche events in a steep watershed of the Swiss Alps using injured broad-leaved and conifer trees, <i>S. Szymczak</i>	6 Wood anatomy and microcharcoal used as markers of paleoenvironmental reconstruction and indicators of prehistoric fire regimes. The case of the Ambato valley at the end of the 1st Millennium, <i>H. B. Lindskoug</i>	2 An Ensemble-Based Approach To Reconstructing Gridded Drought From Tree Rings Over Monsoon Asia, <i>E. Cook</i>
11:40–12:00	7 Reconstruction of extremely short or cold summers in the Siberian Subarctic over the last 500 years – the story of anomalous tree ring structures, <i>M. Gurskaya</i>	7 Frequency and spread of hyperconcentrated flows on fans: a dendrogeomorphic case-study from a dolomite catchment in the Austrian Alps, <i>B. Mayer</i>	7 Evaluation of water deficit tolerance of young aspen (<i>Populus tremula</i> L.) using wood characteristics of juvenile tree rings, <i>M. Meyer</i>	3 A 1000+ year summer PDSI reconstruction for southern-central England, <i>R. Wilson</i>
12:00–12:20	8 Floating millennial chronologies of <i>Pinus</i> in the Sierra de Gredos (Spain), <i>M. Génova</i>	8 Reconstruction of debris-flow activity in the Mont Dore Valley, Sancy Massif (French Central Massif), <i>O. Traian Pop</i>	8 Erosional processes in the upper part of the mountain catchments recorded in exposed roots, <i>D. Wrońska-Walach</i>	4 Dendrohydrology: a tool for decision making in the face of climate uncertainty, <i>C. Woodhouse</i>
12:20–13:50	Lunch			
	A.2 continues	B.2 continues	C.2 continues	D.2 continues
13:50–14:10	9 A multiproxy assessment of the growth response to climatic variability of old living trees in the Pyrenees, <i>J. J. Camarero</i>	9 An improved statistical method in dendrogeomorphology: case study from snow avalanches in the Chic-Chocs Range, eastern Canada, <i>D. Germain</i>	9 Wood anatomical analysis of broad-leaved trees injured by debris-flow events, <i>E. Arbella</i>	5 A Central European oak network reveals inter-annual to multi-centennial hydroclimatic variability over the past 2500 years, <i>W. Tegel</i>
14:10–14:30	10 Climate and streamflow variability in the sub-Antarctic region of South America (45° – 56° S) during the last 500 years: integrating tree-rings, instrumental records and hydroclimatic modeling., <i>A. Lara</i>	10 Use of resistograph for dendrogeomorphological analysis of avalanche impacts, <i>J. Lopez Saez</i>	10 Investigating relationships between ring width, density and cell properties for two long-lived Southern Hemisphere conifers, <i>K. Allen</i>	6 Reconstructions of regional scale hydroclimatic variability in California using a network of high-quality blue oak (<i>Quercus douglasii</i>) tree-ring chronologies, <i>D. Griffin</i>
14:30–14:50	11 Holocene glacial fluctuations at the Mount San Lorenzo, Aysen Chile, <i>J.-C. Aravena</i>	11 Spatial reconstructions of snow avalanche frequency and extent using tree rings in Parc National des Ecrins, French Alps, <i>C. Corona</i>	11 Tree rings used to assess effects of gypsy moth (<i>Lymantria dispar</i> L.) defoliation on wood volume growth of oaks (<i>Quercus</i> spp.) in Pennsylvania, USA, <i>M. A. Fajvan</i>	7 Applying the tree-ring record to critical problems in water resource management, <i>S. Gray</i>
14:50–15:10	12 Spatial drought variability over Northwest China inferred from tree rings, <i>K. Fang</i>	13 Snow avalanche records in the central Pyrenees, <i>E. Muntán</i>	12 The ecological success of the mangrove <i>Avicennia</i> : the perfect combination of well-adapted wood anatomical characteristics and special radial growth? <i>E. Robert</i>	8 Development of south Swedish bog-pine chronologies – assessment of palaeoclimatic potential on local to regional scale, <i>J. Edvardsson</i>
15:10–15:40	Coffee break			

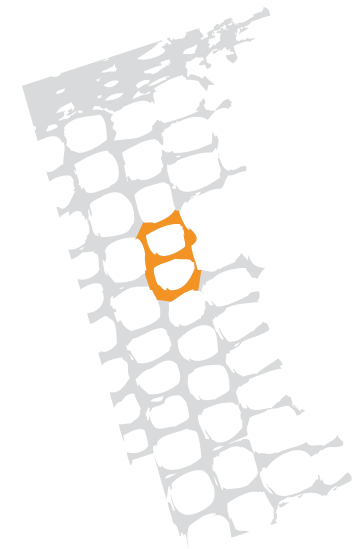
Tree-Ring Science under the Midnight Sun, University of Lapland, Rovaniemi, Finland

Tuesday, June 15, 2010, continues

	A.2 Reconstruction of past climate variations Session chair: <i>Frank Berninger</i> Co-chair: <i>Kerstin Treydte</i>	B.2 Tree rings and natural hazards Session chair: <i>Markus Stoffel</i> Co-chair: <i>Brian Luckman</i>	C.2 Wood anatomy Session chair: <i>Patrick Fonti</i>	D.2 Hydroclimatic changes Session chair: <i>Ute Sass-Klaassen</i> Co-chair: <i>Jaques Tardif</i>
15:10–15:40	Coffee break			
15:40–16:00	13 Annual temperatures during the last 2485 years in the mid-eastern Tibetan Plateau inferred from tree rings, <i>Y. Liu</i>	14 Dendroecological study of disturbances in the natural <i>Picea abies</i> forest "Paranglitsa" in Bulgaria, <i>M. Panayotov</i>	13 Microstructure and chemical composition of tree-rings: new opportunities for multiparameter analysis, <i>P. Silkin</i>	9 Multi-century tree-ring reconstruction of annual streamflow for the Maule watershed, South-Central Chile, <i>R. Urrutia</i>
16:00–16:20	14 The New Zealand kauri chronology: recent advancements in updating and improving the record, <i>G. Boswijk</i>	15 Dendrochronological study in the Terekhol Basin, Southern Siberia, Russia, <i>E. Kuznetsova</i>	14 Impact of three silvicultural regimes on radial growth and wood quality of black spruce, a study case in the boreal forest, <i>É. Pamerleau-Couture</i>	10 A tree-ring perspective on recent and future Rocky Mountain runoff, <i>D. Sauchyn</i>
16:20–16:40	15 Following the flow: recent progress towards a multi-centennial reconstruction from <i>Eucalyptus pauciflora</i> , <i>M. Brookhouse</i>	16 External factors influence on tree growth at the northern timberline at Kola Peninsula and Northern Lapland, <i>E. Kasatkina</i>	15 Spatio-temporal variation of earlywood vessel features of <i>Quercus robur</i> L. along a climatic gradient in the Northwestern Iberian Peninsula, <i>I. García-González</i>	11 The hydroclimatic signal in tree-ring chronologies and recent streamflow trends in the western boreal region, Canada, <i>J.-M. St. Jacques</i>
16:40–17:00	16 500 years of <i>Pinus heldreichii</i> growth variability for the Pirin Mountains in Bulgaria, <i>M. Panayotov</i>	B 4.3 Testing the pyroclimatic hypothesis for Mt. Irish, Nevada, USA, <i>F. Blondi</i>	16 Disturbance history of mountain spruce forests in the Carpathian Mts. derived from tree-rings, <i>T. Zielonka</i>	12 Spring flood reconstruction from ice scar chronologies: the example of lake Montausier, northeastern Canada, <i>E. Boucher</i>
19:00-20:30	Rovaniemi City Reception			

Wednesday, June 16, 2010

	A.3 Tree rings and insects, diseases and anthropogenic factors Session chair: <i>Risto Jalkanen</i>	B.1 New techniques and statistical approaches Session chair: <i>Samuli Helama</i> Co-chair: <i>Kevin T. Smith</i>	C.3 Dendroecology of shrubs Session chair: <i>Eryuan Liang</i>
09:00–09:30	1 Spruce budworm outbreaks and the dynamics of boreal old growth forest of Eastern North America, <i>H. Morin</i>	2 continues (-10 min) A digital collaboratory for cultural dendrochronology (DCCD) in the Low Countries, <i>E. Jansma</i>	1 Ecological significance of annual rings in trees, shrubs and herbs, <i>F. Schweingruber</i>
09:30–09:50	2 Testing for a CO ₂ fertilization effect on growth of Canadian boreal forests, <i>M. Girardin</i>	9 Use of mixed models in dendroecology, <i>F. Berninger</i>	2 Scaling the mountains and roaming the tundra – expanding shrubs in North-Scandinavia and Northwest-America, <i>M. Hallinger</i>
09:50–10:10	3 Coring as a contributing factor to tree mortality?, <i>J. Wunder</i>	10 Analysis of non-linear relationships between climate and tree rings using non metric multidimensional scaling, <i>D. Patón</i>	3 Deciduous shrub growth and the greening of the Arctic in Western Siberia, <i>B. C. Forbes</i>
10:10–10:30	4 Silver fir (<i>Abies alba</i> Mill.) decline and dieback: comparison of growth patterns between sites and improvement of tree mortality models, <i>M. Cailleret</i>	11 Dendroclimatic instability in Aleppo pine across the Mediterranean basin, <i>M. de Luis</i>	4 Annual shoot length growth of the Arctic dwarf shrub <i>Cassiope tetragona</i> as monitor of present-day and past climate change, <i>S. Weijers</i>
10:30–11:00	Coffee break		
11:00–11:20	5 The contribution of the root system to the success of silvicultural treatments, <i>C. Krause</i>	12 The interior of tree roots – a fusion of 3D laser scanning and 2D tree ring data, <i>B. Wagner</i>	5 Comparison of tree ring patterns of dwarf shrubs and trees of the genus <i>Betula</i> at the upper timberline in Norway, <i>I. Burchardt</i>
11:20–11:40	6 Changes in growth and dendroclimatic response of trees growing along an artificial lake, <i>C. Copenheaver</i>	13 Defining temperature and soil moisture thresholds for positive radial increment of cork oak (<i>Quercus suber</i> L.) in a mediterranean environment: an approach based on generalized semiparametric linear mixed models, <i>J. Vázquez-Piqué</i>	6 Are shrubs climbing mountains faster in warmer microclimates? <i>I. H. Myers-Smith</i>
11:40–12:00	7 Air pollution recorded in Scots pine and disease rises in local population due to harmful emissions in Upper Silesia (southern Poland), <i>I. Malik</i>	14 Does acorn production influence the diametric stem growth of holm oak? <i>D. Martin</i>	7 Interaction of geomorphic features and dendrochronological potential of polar dwarf shrubs (<i>Salix polaris</i> , Svalbard), <i>A. Buchwal</i>
12:00–12:20	8 Dendroclimatological analysis of declining Norway spruce forests (<i>Picea abies</i> (L.) Karst) in West Carpatians, <i>R. Marusak</i>	15 Analyzing subjective expert opinions about standardization of tree-ring series, <i>J. Hollmen</i>	8 Advances of shrub in dendrochronology study in China, <i>X. Shengchun</i>
12:20–13:50	Lunch		
13:50–20:00	In-conference tour		



A – Fellman hall
B – Lecture hall LS 3
C – Lecture hall LS 2
D – Castren hall

Tree-Ring Science under the Midnight Sun, University of Lapland, Rovaniemi, Finland

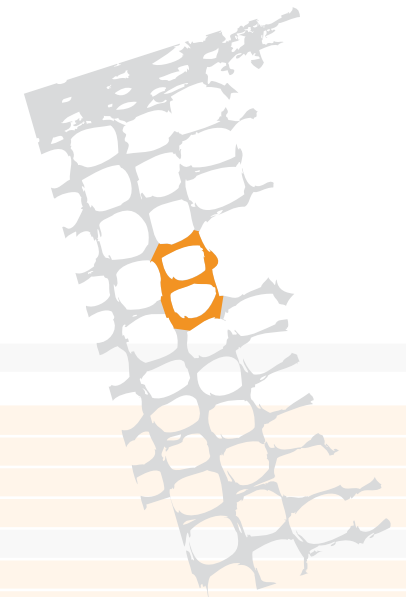
Thursday, June 17, 2010

	A.4 Climate-growth relationship of different tree species Session chair: <i>Jan Esper</i> Co-chair: <i>David Frank</i>	B.3 Stable isotopes Session chair: <i>Gerd Helle</i> Co-chair: <i>Akira Kagawa</i>	C.4 Intra-annual cambium dynamics Session chair: <i>Annie Deslauriers</i> Co-chair: <i>Jožica Gričar</i>	D.3 Stand dynamics and sustainable forest management Session chair: <i>Pascale Weber</i> Co-chair: <i>Christof Bigler</i>
09:00–09:30	1 Qinghai-Tibetan Plateau tree-ring network reveals large-scale spring moisture variation, <i>Q.-B. Zhang</i>	1 Stable isotopes of tree rings as a tool to pinpoint the geographic origin of timber, <i>A. Kagawa</i>	1 Application of controlled experiments for studies of radial growth of trees, <i>J. Gricar</i>	1 Use and misuse of tree rings in long-term forest ecosystem research: Swiss experiences, <i>P. Cherubini</i>
09:30–09:50	2 Summer temperature reconstruction for SE European Alps based on European larch (<i>Larix decidua</i> Mill.) tree-ring proxies, <i>T. Levanic</i>	2 Laser microdissection-flash-pyrolysis-GC-IRMS: a new method for rapid analysis of intra- and interannual variations of ¹³ C and ¹⁸ O in tree rings, <i>G. Helle</i>	2 Intra-annual cambial activity and carbon availability in stem of poplar, <i>A. Deslauriers</i>	2 Climate impacts on tree growth, mortality and lifespan of conifers in forests of the European Alps and the Rocky Mountains, <i>C. Bigler</i>
09:50–10:10	3 Assessment of long-term interannual tree NPP variations in response to climate, <i>F. Babst</i>	3 The influence of atmospheric circulation patterns on the oxygen isotope ratio in precipitation and tree rings, <i>M. Saurer</i>	3 Predicting timings of xylogenesis in black spruce under climatic warming, <i>S. Rossi</i>	3 Growth and sensitivity of beech at the dry distribution limit, <i>P. Weber</i>
10:10–10:30	4 Climate and stand dynamics in the <i>Pinus pinaster</i> forest stands in northern Portugal, <i>M. L. R. Liberato</i>	4 Biases and trends in long-term isotope data from the Spanish Pyrenees, <i>J. Esper</i>	4 Intra-annual radial growth in Scots pine (<i>Pinus sylvestris</i> L.) exposed to drought, <i>W. Oberhuber</i>	4 Tree response to severe drought in the Republic of Ireland: the case of Avoca, Co. Wicklow, <i>A. Tene</i>
10:30–11:00	<i>Coffee break</i>			
11:00–11:20	5 The value of <i>Pinus heldreichii</i> as climate archive in South-eastern Europe, <i>K. Grunewald</i>	5 Stable C and O isotopes in tree physiology for the interpretation of tree ring data, <i>R. Siegwolf</i>	5 Temperature-induced differences in timing of intra-annual growth of subalpine <i>Larix decidua</i> and <i>Picea abies</i> , <i>P. Fonti</i>	5 Spatial and age structure, tree-ring growth dynamics and climate sensitivity in treeline beech forests in Central Italy, <i>C. Urbinati</i>
11:20–11:40	6 Climate impact on the radial increment of Norway spruce (<i>Picea abies</i> (L.) Karst.) in Belarus, <i>M. Yermokhin</i>	6 A Millennial length Stable Isotope Chronology for Arctic Sweden (Torneträsk), <i>N.J. Loader</i>	6 Circadian stem size dynamics in larch and spruce along a 900-meter elevational gradient, <i>G. M. King</i>	6 Climate signal and sensitivity of Turkey oak (<i>Quercus ceris</i>) in central-southern Italy, <i>V. Gallucci</i>
11:40–12:00	7 The first quantitative warm period temperature reconstruction in the Caucasus mountains derived from tree-ring data, <i>E. Dolgova</i>	7 Reconstructing the climate of Scotland using stable carbon and oxygen isotopes in <i>Pinus sylvestris</i> L. (Scots pine), <i>E. Woodley</i>	7 What a dendrochronologist can learn from cambium phenology and intra-annual dynamics of tree-ring formation? <i>C. Rathgeber</i>	7 Norway spruce of different provenances grown in dry regions of Austria – influences on ring width and wood density, <i>S. Karanitsch-Ackler</i>
12:00–12:20	8 Opposite migration of beech and spruce in Southern Sweden – A dendroclimatological analysis, <i>B. Grundmann</i>	8 Age related growth trends in the tree-ring archive: A case study from <i>Pinus sylvestris</i> L. in north-western Norway, <i>G. Young</i>	8 Seasonal growth of tree-rings in larch (<i>Larix gmelinii</i> Rupr.) on permafrost soils in Siberia, <i>M. Bryukhanova</i>	8 Comparison in radial growth patterns of <i>Picea abies</i> in Bulgarian and Swiss mountains, <i>F. Krumm</i>
12:20–13:50	<i>Lunch</i>			
	A.4 continues	B.3 continues	C.4 continues	D.3 continues
13:50–14:10	9 A preliminary analysis of regional moisture in the North-western China during the past 150 years, <i>Y. Zhang</i>	9 Long-Term Changes in Water Use Efficiency Across Europe, <i>D. Frank</i>	9 Phloem ring formation and secondary changes in beech (<i>Fagus sylvatica</i>) bark, <i>P. Prislan</i>	9 Studying the effect of seasonal temperature and precipitation on annual diameter growth of Scots pine on drained peatlands, <i>H. Hökkä</i>
14:10–14:30	10 Tree-ring-based reconstruction of the April to September mean temperature since 1826 AD for north-central Shaanxi Province, China, <i>Q. Cai</i>	10 Climate signals in stable isotopes of <i>Juniperus excelsa</i> from Turkey back to 1025, <i>I. Heinrich</i>	10 Re-activation of xylem and phloem flow in young oaks during spring, <i>P. Copin</i>	10 Effects on dry matter production and intra-annual growth ring density characteristics of genetically improved Norway spruce in northern Sweden, <i>T. Mörling</i>
14:30–14:50	11 Responsive variations of <i>Qilian Juniper</i> to climate at different elevations in Wulan, Qinghai Province, China, <i>Y. Xu</i>	11 The use of carbon and oxygen stable isotope data in tree-rings for dendroecological studies in Siberia (Russia), <i>A. V. Kirilyanov</i>	11 Xylem formation and seasonal growth of <i>Agathis australis</i> (kauri) – an examination of intra-annual tree-ring patterns, <i>S. P. J. McCloskey</i>	11 Dynamics of <i>Pinus banksiana</i> mortality in the eastern Canadian boreal forest, <i>A. Genries</i>
14:50–15:10	12 Tree-ring based winter temperature reconstruction for the lower reaches of the Yangtze River in southeast China, <i>J. Shi</i>	12 Stable isotopes in tree rings as indicator of climatic and environmental changes in high – latitude and -altitude regions, <i>O. Sidorova</i>	12 Compression wood formation as an indicator of ice storm damage in the southern Appalachian Mountains, USA, <i>B. Hook</i>	12 Would <i>Quercus canariensis</i> Willd. populations from low elevations be particularly threatened by drought increase? <i>G. Gea-Izquierdo</i>
15:10–15:40	<i>Coffee break</i>			
15:40–16:00	13 Three spruce chronologies of tree-ring maximum density from upper tree line in the western Tianshan Mountains of Xinjiang, <i>Y. Yujiang</i>	13 Dendrochronology and metal deposition in tree rings of baldcypress (<i>Taxodium distichum</i>) growing in wetlands in south Louisiana, USA, <i>M. S. Devall</i>	13 A physiological model of wood formation, <i>T. Hölttä</i>	13 Interactive effects of climate and groundwater depth on semiarid woodlands: a dendrochronological analysis in central Argentina, <i>S. Marys Bogino</i>
16:00–16:20	14 History of <i>Abies spectabilis</i> population recruitment along an altitudinal gradient in Mt. Everest region, <i>L. Lv</i>	14 Reconstructing hydro-climate during the last two centuries in the northeastern Canadian boreal forest using carbon and oxygen dendroisotopes, <i>C. Bégin</i>		14 <i>Nothofagus dombeyi</i> and <i>Austrocedrus chilensis</i> establishment in declining forests, <i>M. Amoroso</i>
16:20–16:40	15 The palaeoclimatic potential of conifer species in the Himalayan region of Pakistan, <i>M. Ahmed</i>	15 Evaluating the integrity of isotopic series in fossil wood deposited in Northeastern Canadian lakes – Preliminary work for reconstructing millennium climatic series, <i>M. M. Savard</i>		15 Impact of future climate on radial growth of four dominant boreal tree species along a latitudinal gradient in the eastern Canadian boreal forest, <i>J.-G. Huang</i>
16:40–18:30	Poster session II, we ask the authors of the posters PA3–PA5, PB3–PB4, PC3–PC5, PD3–PD4 to be at their posters.			
17:00–17:30	Meeting of the Nordic Association			
17:30–18:30	Meetings of the continental associations (ATR, TRS, Asian, Nordic)			

Tree-Ring Science under the Midnight Sun, *University of Lapland, Rovaniemi, Finland*

Friday, June 18, 2010

09:00–09:30	A.5 Teleconnections Session chair: <i>Yu Liu</i> 1 Teleconnections in the climate system from a dendro-chronological perspective, <i>H. W Linderholm</i>	B.3 Stable isotopes Session chair: <i>Gerd Helle</i> 16 (-10 min) A comparison of stable carbon and oxygen isotopes in tree rings and Sphagnum mosses from the Canadian Arctic, <i>S. Holzkämper</i>	C.5 Landscape dynamics Session chair: <i>Rob Wilson</i> 1 Rate of post-fire rise of permafrost under larch stands in Siberia estimated by dendrochronological methods, <i>A. Knorre</i>	D.4 Tropical dendrochronology Session chair: <i>Fidel Roig</i> 1 Long Montezuma Baldcypress tree-ring chronologies in Mesoamerica, <i>D. Stahl</i>
09:30–09:50	2 Low frequency variation in tree-ring chronologies: evidence of the Pacific North American pattern (PNA) in the Southern Appalachian and Northern Rocky Mountains, USA, <i>C. Crawford</i>	17 Hydroclimate variations and $\delta^{18}O$ of precipitation recorded by tree-ring cellulose $\delta^{18}O$ of different tree species from different environment in semi-arid Northern China, <i>Q. Li</i>	2 Tree-ring evidence of glacier dynamics in Monsoon Asia during the Late Holocene, <i>A. Bräuning</i>	2 Plastic wood anatomical responses of tropical species to dry and moist conditions, <i>E. Fichtler</i>
09:50–10:10	3 Climate/tree-ring and teleconnection relationships for a millennial-length chronology of <i>Chamaecyparis obtusa</i> var. <i>formosana</i> from northern Taiwan, <i>W. Wright</i>	18 High-frequency signals in millennial stable isotope series from the Tibetan plateau, <i>J. Griessinger</i>	3 Tree species portfolio in a drier future – a case study from Valais, <i>B. Eilmann</i>	3 Dendrochronology and isotope chronology of <i>Juglans neotropica</i> and its response to ENSO events in tropical highland areas of Piura, northern Peru, <i>T. M. Ektvedt</i>
10:10–10:30	4 Climate reconstruction from tree ring data of western Himalaya and its tele-connection with global sea surface temperature and sea level pressure, <i>A. Bhattacharyya</i>	19 The potential of tree rings and stable isotopes from East to West Africa, <i>A. Gebrekirstos</i>	4 Effects of high latitude climate change and permafrost dynamics on forest growth in the Mackenzie river basin in northern Canada, <i>T. Varem-Sanders</i>	4 From darkness to light, evaluating the gap dependence of Bolivian rainforest tree species, <i>C. C. Soliz-Gamboa</i>
10:30–11:00	Coffee break			
11:00–11:20	5 Basis and application of superposed epoch analysis to fire/climate relationships, <i>E. K. Sutherland</i>	B.4 Forest fires in changing climate Session chair: <i>Connie Woodhouse</i> 1 (+10 min) Fire history of the Giant Forest, Sequoia National Park, <i>T. Swetnam</i>	5 Historical fire regimes and stand development patterns in Australian Eucalypt forests – integrating tree-ring, pollen and charcoal analysis, <i>R. Simkin</i>	
11:20–11:40	6 Expanding the tree-ring chronology network in SW Spain, <i>D. Patón</i>	2 Fire-climate interactions in the American West since 1400 CE, <i>V. Trouet</i>	6 Asymmetric variability between maximum and minimum temperature in Northeastern Tibetan Plateau: Evidence from tree rings, <i>X. Gou</i>	
11:40–12:00	7 Changes in teleconnection pattern between Japanese summer monsoon (Baiu) and ENSO during last three centuries: Evidences from oxygen isotopic ratios of tree-ring cellulose in northern, central and southern Japan, <i>T. Nakatsuka</i>	4 Fire activity in Scandinavia during 1500–1900, <i>M. Niklas-son</i>	7 Dendroclimatological analysis of summer temperatures in the Irik Valley, Elbrus Region (Russia), <i>I. H. Holobaca</i>	
12:00–12:20	8 Annual Precipitation since A.D. 1460 reconstructed from the juniper ring width of Qilian Mountains, <i>Q. Tian</i>		8 Age of the <i>Pinus sylvestris</i> trees and forests in northeastern Finnish Lapland, <i>T. Wallenius</i>	
12:20–13:40	Lunch Plenary session: Chair: <i>Prof. James H. Speer</i>			
13:40–14:00	<i>Prof. Nathsuda Pumijumnong</i>	Asian Dendrochronology – past and present experiences and future challenges		
14:00–14:20	<i>Prof. Fidel Roig</i>	The multi-millennial-length tree-ring records in the Southern Hemisphere: current development and perspectives		
14:20–14:40	<i>Prof. Achim Bräuning</i>	Atomization of a discipline? Forward thinking for a retrospective science		
14:40–15:00	<i>Dr. Margaret Devall</i>	Dendrochronology and IUFRO: history, recent activities and the future		
15:00–15:30	Coffee break			
15:30–15:50	<i>Prof. Dieter Eckstein</i>	Lessons learned on potentials and future directions of dendrochronology		
15:50–16:10	<i>Prof. James H. Speer</i>	Concluding remarks		
16:10–16:45	<i>Väinö Jalkanen</i>	Music; Sibelius & Rautavaara		
	Announcement of the host for the 9th conference			
	<i>Prof. Kari Mielikäinen</i> : WorldDendro2010 adjourns			
20:00–00:30	WorldDendro2010 Farewell Dinner			



Saturday, June 19, 2010–

Post-conference excursions