

Programme

Pre-Conference tour

Tentative Scientific Program of the Conference

Presentations:

Oral presentations

Monday, May 21

Air Pollution, Climate Change, and Forest Growth”				
Chair persons: Andrzej Bytnerowicz and Elena Paoletti				
No.	Time	Authors	Country	Title
1.	10:15 -10:30	A. Augustaitis, I.Augustaitiene, R. Juknys, A. Vitas	Lithuania	Do recent changes in environmental condition favour the growth of Scots pine and Norway spruce trees in Lithuania?
2.	10:30 -10:45	A. Sellin	Estonia	Impact of elevated atmospheric humidity on performance of silver birch (<i>Betula pendula</i>)
3.	10:45 -11:00	H. Shang, Z. Chen, B. Lin	China	Responses of the radial growth of trees to climate change at the timberline in southeast Tibetan Plateau: Difference between the shade-tolerant and intolerant tree species



		Yu.N. Ponomarev, V.A. Sapozhnikova, D.A. Savchuk		
6.	11:30 -11:45	E. Gottardini, F. Cristofolini, M. Confalonieri, A. Cristofori, G. Gerosa A. Finco, M. Ferretti	Italy	Monitoring, surveying, modelling and mapping to detect ozone effects on forests in Trentino (Italy) - the ozone EFFORT project
7.	11:45 -12:00	C.Branquinho, P.Pinho, P.Matos, A.Nunes, S.Augusto, C.Máguas	Portugal	Ecological indicators of global change: what do they tell us about the air pollution and climate change in the south of Portugal?
	in reserve	Ch.Maximilian Ani, M.Lampe, P.Zong	China	Environmental Air pollution monitoring and measurement using Wireless Sensor Networks

Session 2 "Atmospheric Deposition, Soils and Nutrient Cycling"

Chair persons Mark Fenn and Jesada Luangjame

No.	Time	Authors	Country	Title
1.	13:00 -13:15	K. Armolaitis, A. Augustaitis, E. Bartkevičius, V. Stakėnas, V. Stravinskienė, J. Šepetienė, I. Kabašinskienė, E. Plaušinytė, V. Marozas, J. Aleinikovienė	Lithuania	Nitrogen air pollution: decline and recovery of Scots pine (<i>Pinus sylvestris</i> L.) forest ecosystems
2.	13:15 -13:30	P. Merilä, K. Derome, A.J. Lindroos, S. Nevalainen, T.M. Nieminen	Finland	An increasing trend in nitrate concentration in soil percolation water in a Norway spruce stand under low nitrogen deposition in Finland
3.	13:30 -13:45	M.Ferretti, A.Marchetto, F.Bussotti, M.Calderisi, R.Canullo, S.Carnicelli, G.Cecchini, G.Fabbio, G.Bertini, G.Matteucci, B. De Cinti, E.Pompei, L.Salvati	Italy	Nitrogen deposition and Critical Load exceedance: effects on health, growth and diversity of forest vegetation in Italy
4.	13:45 -14:00	S. Małek, K. Januszek, J.	Poland	Ecochemical condition of soils after fertilization of dying old spruce (<i>Picea abies</i> (L.) H. Karst.) stands in the Beskid

		Barszcz, M. Kroczek		Śląski and Żywiecki Mts.
5.	14:00 -14:15	V.J. Bruckman, Sh. Yan	Austria	Nutritional status of <i>Quercus</i> dominated forest ecosystems for Biomass production
6.	14:15 -14:30	N. Torlopova, E. Robakidze, K. Bobkova	Russia	Water Migration of Organic Carbon and Nitrogen in Old-aged Spruce Forests of the Middle Taiga Subzone
7.	14:30 -14:45	M.E. Fenn, A.Bytnerowicz, D. Schirokauer, L.H. Geiser, K. Dillman	USA	Effects of Cruise Ship Emissions on Air Quality and Vegetation in Southeast Alaska
	In reserve	H.García, J.L.Garrido, M.G.Vivanco, L.Lassaletta, I.Rabago, A.Avila, G.Sánchez, A.González, I.González-Fernández, R.Alonso	Spain	Trends in nitrogen deposition in Spain: comparison of measured and modeled data

Session 3 “Forest Health, Methods and Tools for Forest Monitoring”

Chair person: Marcus Schaub, co-chair Algirdas Augustaitis

No.	Time	Authors	Country	Title
1.	15:15 -15:30	S. Fares, G. Matteucci, G.S. Mugnozsa, E. Paoletti, F. Loreto.	Italy	Measurements of stomatal ozone fluxes and effects in a mixed Mediterranean oak forest
2.	15:30 -15:45	G.Gerosa, A.Finco, A. Negri	Italy	Ozone fluxes to a larch forest ecosystem at the timberline in the Italian Alps
3.	15:45 -16:00	O.Badea, S.Neagu	Romania	Forest Monitoring - assessment, analysis and warning system on forest ecosystem status
4.	16:00 -16:15	M. Pietras, R.Jaszczak, M.Miotke, T.Leski, M.Rudawska	Poland	The ectomycorrhizal fungi in declining pedunculate oak (<i>Quercus robur</i> L.) stands
5.	16:15 -16:30	M.Pilkauskas, A.Augustaitis, E.Beniusis, A.Kliucius, V.Marozas, A.Vitas	Lithuania	Growth peculiarities of European beech trees on the west – east gradient in Lithuania
6.	16:30 -16:45	O.Miezīte, A.Lazdiņš, M.Okmanis, R.Āls, K.Polmanis	Latvia	Role of scale predator <i>Anthribus nebulosus</i> in control of population of <i>Physokarmes piceae</i> Schrnk in Norway spruce <i>Picea abies</i> (L.) Karst. Ecosystem
7.	16:45 -17:00	Z.Feng, W.Zhang, X.Wang, J.Uddling	Sweden, Chaina	Leaf mass per area (LMA) contributes to the sensitivity of tree species to elevated ozone

Tuesday, May 22

Session 4 "Dedicated to Satu Huttunen".

Chair persons: Sirkku Manninen and Allan Legge.

No.	Time	Authors	Country	Title
1.	8:00 – 8.15	A.Bytnerowicz, M.E. Fenn	USA	Nitrogen and sulfur air pollution and atmospheric deposition in the Athabasca Oil Sands Region, Alberta, Canada
2.	8:15 – 8.30	E.Paoletti, Y.Hoshika, W.J. Manning	Italy, Japan, USA	Ambient ozone exposure affects carbon allocation and gas exchange in poplars treated with the antiozonant ethylenediurea for three years
3.	8:30 – 8.45	J.Burkhardt	Germany	Direct interactions of hygroscopic particles with leaf/needle surfaces and plant water relations
4.	8:45 – 9.00	A.Hyyryläinen, J.Martínez- Abaigar, F.Martz, P.Rautio, M.Turunen, S.Huttunen	Finland Spain	The impact of temperature and solar UV radiation on chlorophyll and phenolics of Sphagnum sp.
5.	9:0 – 9.15	M.Mäenpää, S.Kontunen- Soppela, M.Rousi, E.Oksanen	Finland	Assimilation, acclimation and allocation responses of birch and aspen to increasing temperature and oxidative stress
6.	9:15 – 9.30	C.Chutteang, R.Marushima, M.Takeda, G.Zhenrui, P.Na-ngern, Buhe, F.Takemasa, Sh.Hatakeyama, M.Aoki	Japan	Single and combined effects of peroxides and ozone for consecutive three years on visible leaf injury, growth, and mineral content of beech seedling
7.	9:30 – 9.45	A.Legge, S.Krupa, M.Landis, P.Pancras, E.Edgerton, J.Graney, J.Blum, W.Studabaker, J.Raymer, R.K.M. Jayanty, K.Percy	USA, Canada	Apportionment of Multiple SO _x and NO _x Source Emissions and their Deposition for Ecological Effects Assessment

Session 5 “Multiple Stressor Effects on Ecosystems”

Chair persons Nancy Grulke and Mikhail Kozlov

(1st part)

No.	Time	Authors	Country	Title
1.	10:15 -10.30	Z.Kongoi, L.Bonten, Wim de Vries	The Netherlands	Impacts of changes in climate, nitrogen deposition, ozone and CO ₂ exposure on forest carbon sequestration: a meta-analysis
2.	10:30 -10:45	P.Cudlín, T.Müllerová, P.Štěpánek, A.Farda, M.Edwards-Jonášová, T.Žid, P.Čermák,	Czech R.	Multiple stressor effect analysis for future risk assessment of spruce forests in the Slezske Beskydy Mts. (Czech Republic)

		S.Křístek, P.uček		
3.	10:45 -11:00	V.Zverev, M.V. Kozlov	Finland	Climate modifies effects of industrial pollution on growth of mountain birch
4.	11:00 -11:15	S.Małek, J.Barszcz, K.Januszek, M.Kroczek	Poland	Assessment of the reforestation success of fertilized cultures of <i>Fagus sylvatica</i> L. and <i>Abies alba</i> Mill. grown under the canopy of spruce stands threatened with disintegration in the Beskid Śląski and Żywiecki Mts
5.	11:15 -11:30	O.Zajkalns, I.Liepa	Latvia	Response reactions of Norway spruce to changing air pollution and weather conditions, in Kurzeme
6.	11:30 -11:45	A.Rodrigues, G.Pita, M.Casquilho	Portugal	Evaluation of the potential of sequestration of atmospheric carbon in a Portuguese eucalypt stand under conditions of water stress
7.	11:45 -12:00	A.Giuggiola, A.Rigling, M.Dobbertin	Switzerland	Multiple stress induced decline of Scots pine in dry inner-alpine valleys in Switzerland

Session 6 “Multiple Stressor Effects on Ecosystems”

Chair persons: Nancy Grulke and Mikhail Kozlov

(2nd part)

No.	Time	Authors	Country	Title
1.	13:00 -13.15	P.Pinho, C.Branquinho	Portugal	Using lichen functional groups as indicators of the effects of multiple stressors on ecosystems
2.	13:15 -13:30	S.Braun, R.Mainiero, W.Flückiger	Switzerland	Nitrogen and water use paramets of young <i>Fagus sylvatica</i>
3.	13:30 -13:45	M.Goisser, U.Zang, R.Matyssek, K.H.Häberle, W.Borken, E.Matzner	Germany	Response of beech saplings to extreme and repeated summer droughts of relevance for stand establishment in the future
4.	13:45 -14:00	A.Kühn, M.Baumgarten, H.P.Dietrich, R.Matyssek	Germany	Intra-annual growth of adult beech (<i>Fagus sylvatica</i> L.) – influenced by short term water limitation and ozone uptake?
5.	14:00 -14:15	M.Urbaniak, B.H.Chojnicky, A.Danielewska, M.Baran, J.Olejnik	Poland, Czech R.	Measurements of mass and energy exchange between pine afforestation and the atmosphere - past, present and future research at Tuczno site (Poland)
6.	14:15 -14:30	I.Mészáros, P.Kanalas, B.Nyitrai, J.Kis, A.Fenyvesi, V.Oláh, Z.Demeter, E.Szóllósi	Hungary	Diurnal and seasonal variation in stem radius and water status of mature sessile oak <i>Quercus petraea</i> (Matt.) Liebl. and turkey oak <i>Quercus cerris</i> L. trees in relation to weather conditions
7.	14:30 -14:45	S.Luguza, I.Liepa, K.Cirse	Latvia	Role of tree growth active periods in dendroecological research

Session 7 “Environmental Quality and Pressures Assessment under Global Changes”

Chair persons: Lars Lundin and Alessandra Pugnetti

Organized by ICP IM and ENVeurope.

No.	Time	Authors	Country	Title
1.	15:15 -15.30	J.Vuorenmaa, M.Forsius, S.Kleemola	Finland	S and N input-output budgets at ICP Integrated Monitoring sites.

2.	15:30 -15:45	R.Jakuš		The development of "supersite" plot and forest dynamic observations system in Polana mountains
3.	15:45 -16:00	T.Dirnböck, U.Grandin	Austria, Sweden	Long-term vegetation responses at ICP IM sites in relation to deposition impacts
4.	16:00 -16:15	M.Holmberg	Finnish	Empirical impact indicators agree with exceedances of critical loads
5.	16:15 -16:30	S.Löfgren, M.Aastrup, L.Bringmark, H.Hultberg, L.Lewin-Pihlblad, LLundin, G.P.Karlsson, B.Thunholm	Sweden	Recovery of soil water, groundwater and streamwater from acidification at the Swedish Integrated Monitoring catchments
6.	16:30 -16:45	G.Matteucci, M.Frenzel, M.Bascietto	Italy, Germany	Testing common monitoring and research parameters: the EnvEurope field exercise
7.	16:45 -17:00	H.A.deWit, J.Blaszczak	Norway	Mercury in stream and wetland porewater in two Norwegian catchments

Wednesday, May 23

Session 8 "Genetic Aspects"				
<i>Chair persons: Gerhard Müller-Starck and Om P. Rajora</i>				
No.	Time	Authors	Country	Title
1.	13:00 -13.15	O.P. Rajora, J.Kim, J.E. Major	Canada	Genic responses of black spruce to climate change
2.	13:15 -13:30	T.O.Best	USA	Comparative genomics of ozone stress response in hardwood tree species
3.	13:30 -13:45	J.Dumont, S.Keski-Saari, M.Keinanen, S.Kontunen-Soppela, D.Cohen, N.Ningre, Ata Allah Dghim, M.N.Vaultier, P.Baldet, Y.Gibon, D.LeThiec P.Dizengremel, Y.Jolivet, E.Oksanen,	France, Finland	Ozone-induced detoxification processes in three <i>Populus</i> genotypes: Metabolomic and molecular approaches
4.	13:45 -14:00	R.Longauer, D.Gömöry, M.Pacalaj	Slovakia	Tree Genetics and Reconstruction of Secondary Coniferous Forests: A case Study from the Western Beskids Mts., Slovakia
5.	14:00 -14:15	A.Jansons, L.Purina, B.Dzerina, O.Krisans, U.Neimane	Latvia	Genetic differences in lammas growth of Scots pine in response to prolonged vegetation period
6.	14:15 -14:30	D.Krabel, K.Morgenstern	Germany	Boon and bane of endophytes in a changing environment

7.	14:30 -14:45			
Session 9 “Hydroecology “ Chair persons: Yusuf Serengil and Stanislaw Malek				
No.	Time	Authors	Country	Title
1.	15:15 -15:30	N.Yamashita, H.Sase, R.Kobayashi, Sh.Uchiyama, S.Urban, T.Ying Ying, N.Chappell	Japan, UK	Stream water chemistry and internal nutrient fluxes in a Malaysian tropical rainforest
2.	15:30 -15:45	H.Sase, N.Yamashita, Sh.Uchiyama, R.Kobayashi, J.Shindo, K.Matsuda, M.Nakata	Japan	Atmospheric deposition and stream water chemistry in a Japanese cedar forest – 10-year surveys along Sea of Japan
3.	15:45 -16:00	M.Żelazny, Ł.Jelonkiewicz, A.Olech	Poland	Displacements of Carbonate Equilibria in Polish Tatra Mountain Waters in the Last Fifty Years
4.	16:00 -16:15	Z.Galić, S.Orlović	Serbia	Monitoring of soil moisture dynamics in fluvisol under changig climate
5.	16:15 -16:30	M.Jasik, S.Małek, M.Pająk	Poland	Changes in chemical composition of spring waters in the Świętokrzyski National Park under the influence of permanent high acid deposition
6.	16:30 -16:45	M.Čater	Slovenia	Is there a perspective for oaks in Slovenian lowlands?
7.	16:45 -17:00	Y.Serengil, K.Şengönül, F.Gökbülak, İ.Yurtseven, B.Uygur	Turkey	Runoff and nutrient budgets in small experimental catchments in Istanbul, Turk

Thursday, May 24

Session 10 “Mechanisms of Action and Indicator Development” Chair persons: Rainer Matyssek and Alessandra Kozovits.				
No.	Time	Authors	Country	Title
1.	8:00 – 8.15	R.Matyssek, G.Wieser, A.R. Kozovits	Germany, Austria, Brazil	Mechanisms of Action in and Indicator Development for Forests under Climate Change and Air Pollution –from Gaps in Evidence to Integrated Knowledge
2.	8:15 – 8.30	H.S.Neufeld, J.Johnson, Ch.Dolan, R.Kohut	USA	Differences in ozone sensitivity within and among two varieties of cutleaf coneflower (<i>Rudbeckia laciniata</i> var. <i>digitata</i> and <i>R. laciniata</i> var. <i>ampla</i>)
3.	8:30 – 8.45	P.Vollenweider	Switzerland	Tissue- and cell-level bioindications of climate change and air pollution in foliage of trees

4.	8:45 – 9.00	L.Sisenis, J.Rieksts-Riekstins, R.Rieksts-Riekstins, J.Jansons, A.Jansons	Latvia	Possible use of introduced species <i>Pinus contorta</i> for biomass production in Latvia
5.	9:0 – 9.15	N.Grulke, E.Paoletti, D.Grantz, R.Matyssek	USA, Italy, Germany	Changes in threshold for Ps and gs decoupling with increasing O ₃ concentrations in cultivated and uncultivated species
6.	9:15 – 9.30	T.N. Mikkelsen, D.Bruhn, I.M. Møller, P.Ambus	Denmark	Terrestrial plant methane production and emission
7.	9:30 – 9.45	M.Medori, I.Nogués, C.Calfapietra	Italy	Relationship between Volatile Organic Compounds emission and antioxidant compounds in <i>Cistus monspeliensis</i> under drought and warming stress

Session 11 “Modeling and Risk Assessment”

Chair persons: Salim Belyazid and Wim de Vries

No.	Time	Authors	Country	Title
1.	10:15 -10.30	M.Baumgarten, W.Weis, A.Kühn, R.Matyssek	Germany	Evaluating forest stand transpiration from two perspectives - xylem sap flow measurement <i>versus</i> hydrological modeling
2.	10:30 -10:45	A. Morani, D. Nowak, V. Muzzini, S. Hirabayashi, S. Fares, C. Calfapietra	Italy	Comparing modeled ozone absorption with field measurements in a periurban Mediterranean forest
3.	10:45 -11:00	D.A. Grantz, H.B.Vu, R.L. Heath, K.Burkey	USA	Diurnal trends in ozone sensitivity and effective flux in <i>Gossypium</i> : Key to modeling impacts?
4.	11:00 -11:15	W.de Vries, M.Posch, D.Simpson, A.Nyiri, G.J.Reinds, L.Bonten	The Netherlands, Norway, Sweden	Impacts of changes in climate, nitrogen deposition, ozone and CO ₂ exposure on forest carbon sequestration: a model assessment
5.	11:15 -11:30	A.R. Kozovits, J.Moneratt Lanna, T.G.de Senna Carneiro	Brazil	Effects of CO ₂ enrichment and intensification of dry seasons on Amazon rain forest biomass and structure simulated by Troll model
6.	11:30 -11:45	A.de Marco, M.Vitale, U.Kilic, E.Paoletti	Italy	Ozone data from passive samplers and AOT40 estimation in Italy
7.	11:45 -12:00	R.Juknys, J.Vencloviene, A.Vitas, A.Augustaitis, A.Kliucius, E.Bartkevicius	Lithuania	Dynamic response of tree growth to changing environmental pollution

Poster session

15:15 – 17:00 Poster Session Chair persons: He Shang and Vitas Marozas

Session 1 “Air Pollution, Climate Change, and Forest Growth”

1.	A. Koukhata	Russia	The temperature and precipitation effects on the annual linear Scotch pine increment on the banks of Kandalaksha bay
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2.	M. Aoki, R. Marushima, C. Chutteang, P. Na-Ngern, M. Takeda, F. Takemasa, G. Zhenrui, B. Chen Xuan	Japan, China	Peroxides concentrations at two places in central Japan under global warming
3.	I. Berki, N. Móricz, E. Rasztovits	Hungary	The relationship among climate change, N-supply and sessile oak decline
4.	G. Georgieva, S. Bratanova, N. Chipev	Bulgaria	Long term dynamics of biotic and abiotic damages of forest ecosystems in Strandza Mountain (Southeast Bulgaria) in relation to climate change
5.	M. Zadina, A Jansons	Latvia	The influence of climate factors on Scots pine (<i>Pinus sylvestris</i> L.) seasonal height growth dynamics
6.	M. Kukk, A. Söber	Estonia	The effects of elevated air humidity on the development of silver birch (<i>Betula pendula</i> Roth) foliage in an experimental forest ecosystem
7.	B. Nyitrai, J. Kis, P. Kanalas, V. Oláh, E. Szöllösi, I. Mészáros	Hungary	Relationship between tree ring changes of two co-existing oak species and climate from North Hungarian Central Range, Hungary
8.	L. Baležentienė, A. Užupis	Lithuania	GHG emissions seasonal response to different treatment of grassland ecosystems in the central Lithuania
9.	E. Çaliskan	Turkey	Forest roads planning and construction in Turkish forestry

Session 2 “Atmospheric Deposition, Soils and Nutrient Cycling”

1.	K. Januszek, E. Błońska, T. Wanic, S. Małek, J. Barszcz	Poland	Effect of mineral fertilization on soil enzymatic activity of spruce younger age classes in the Beskid Śląski and Żywiecki Mts.
2.	W. Łukasik, P. Kubiesa, T. Staszewski	Poland	Erosion Processes Caused by Logging in Mountain Areas. Wilczy Potok Valley in the Silesia Beskid Case Study
3.	M. Pająk, J. Socha, S. Małek, M. Jasik, S. Mucha	Poland	The influence of selected properties of the forest environment on the level of heavy metal accumulation in the soil surface layers in the immediate vicinity of the Bolesław Mine and metallurgical Plant in Bukowno (southern Poland)
5.	R. Caggiano, R. Fikova, N. Ignatova, L. Telesca, S. Trippetta	Italy, Bulgaria	Rainfall modification in mountainous ecosystems dominated by <i>Fagus sylvatica</i> and <i>Picea abies</i> (Western Balkans, Bulgaria): an assessment by multivariate analyses
4.	H. Sase, K. Matsuda, T. Visaratana, H. Garivait, N. Yamashita, B. Kietvuttinon, B. Hongthong, J. Luangjame, P. Khummongkol, J. Shindo, T. Endo, K. Sato, M. Miyazawa, M. Nakata	Thailand, China	Deposition process of ion constituents and black carbon in East Asian forests
6.	I. Hůnová, J. Maznová	Czech R.	Trends in Atmospheric Deposition in Czech Forests
7.	T. Staszewski, P. Kubiesa, W. Łukasik	Poland	Differences in PAHs deposition to leaves of <i>Quercus robur</i> , <i>Betula pendula</i> , and <i>Pinus sylvestris</i>
8.	A. Beniusis, A. Augustaitis, I. Augustaitiene, D. Danusievicius, A. Kliucius, V. Marozas	Lithuania	Growth of Scots pine, Norway spruce and Larch Siberian trees under the effect of changing nitrogen emissions and climatic condition

Post-conference tour

Program for accompanying persons