

## POSTER SESSIONS

### Session 1: Catchment monitoring/manipulations/models

Poster number	
1	Environmental control of soil organic carbon pools in temperate forest soils <i>Chuman T., Oulehle F., Hruška J.</i>
2	Soil carbon and nutrient effects change with soil depth and land-use intensification <i>Reinsch S., del Carmen Blanes-Aberola M., Cosby B.J., Cooper, D.M., Glanville H.C., Nunez-Patrana D., Smart S.M., Marshall M.R., Winterbourn J.B., Carreira J.A., Jones D.L., Emmett B.A.</i>
3	Assessing blanket bog management and climate change implications on plot to catchment scale ecosystem services <i>Heinemeyer A., Morton P.A., Thom T., Vallack H.W.</i>
4	Spatial and temporal variability in microbial soil quality indicators in two forest catchments <i>Carnol M., Bosman B., Ratcliffe S.</i>
5	Long-term monitoring in a small forest catchment within the National Atmospheric Observatory Košetice, Czech Republic <i>Svobodova J., Čech J., Váňa M.</i>
6	The Catena concept may provide the missing scale in soil organic carbon modelling <i>Yurova A., Tupek B.</i>
7	Biological soil crusts as drivers for ecosystem structures and functions on reclaimed post-mining sites in Lower Lusatia, Germany <i>Gypser S., Veste M.</i>
8	Changes in soil sorption complex during 9 years following bark-beetle induced forest dieback <i>Kaňa J., Kopáček J., Šantrůčková H.</i>
9	Cosmic-ray neutron sensing to monitor soil moisture dynamics in an irrigated maize field <i>Scheffele L.M., Budach C., Oswald S.E.</i>
10	Using the Spatial Hydrology Model (SpatHy) to predict soil trafficability <i>Laurén A., Launiainen S., Salmicaara A., Uusitalo J.</i>
11	Benzo[a]pyrene bioaccumulation in the soil-plant system of a model experiment <i>Suskova S., Minkina T., Deryabkina I., Antonenko E., Bauer T., Zamulina I., Kizilkaya R.</i>
12	Seasonal and soil biochemical influences on fungal communities at the Abies hylophylla forest of Mt. Jeombong, Korea <i>Oh S.-O., Park, K.H., Lim Y.W.</i>

### Session 2: Long-term trends in ecosystem functioning

Poster number	
13	Climate linkages to increases of dissolved organic carbon in acid-sensitive high elevation lakes <i>Gavin A., Nelson S.J., Fernandez I.J., Strock K.E., Klemmer A.J.</i>
14	Response of a peatland and forest ecosystem to hydrological changes, fire and pollutions during the last 350 years: Palaeoecological insights from Białowieża Forest (Central Europe) <i>Gałka M., Gallego-Sala A., Kajukalo K., Knorr K.-H., Kolaczek P., Lamentowicz M., Marcisz K., Tobolski K.</i>
15	Effects of climate change on water and carbon balances in Swedish forests <i>Zanchi G., Belyazid S.</i>
16	Temporal trends in atmospheric deposition of acidifying compounds in Lithuania in the period 2000–2015 <i>Žaltauskaitė J., Stakėnas V.</i>
17	Investigating molecular changes in organic matter composition in two Holocene lake-sediment records from central Sweden using pyrolysis-GC/MS <i>Ninnes S., Tolu J., Meyer-Jacob C., Bindler R.</i>
18	The impact of climate change on phenological development of barley in Lithuania <i>Sujetovienė G., Juknys R., Romanovskaja D., Velička R., Kanapickas A., Kriaučiūnienė Z.</i>
19	The <sup>18</sup> O/ <sup>16</sup> O ratio of water in wines: Record of climatic changes <i>Buzek F., Čejková B., Jačková I., Lněničková Z.</i>

### Session 3: Biosphere–atmosphere interactions in an era of global change

Poster number	
20	Effects of slope orientation and site elevation on seasonal soil carbon dynamics in forested mountainous areas <i>Kobler J., Zehetgruber B., Jandl R., Dirnböck T., Schindlbacher A.</i>
21	Diurnal dynamics in methane emission from bog ecosystems in West Siberia <i>Veretennikova E., Dyukarev E.</i>
22	On the spot study reveals the missing carbon sink <i>Bauhn L., Ekberg C., Fleischer S., Mattsson M.</i>
23	Biological productivity and components of the carbon cycle in pine forests in the Northeast of the East European Plain <i>Osipov A.F., Kutjavin I.N., Bobkova K.S.</i>
24	Plant-soil interactions in the rhizosphere soil of plants grown at ambient and elevated CO <sub>2</sub> levels <i>Jílková V., Paterson E., Sim A.</i>
25	Carbon sequestration in Lithuanian forests <i>Dagiliūtė R., Kakyatė L., Sujetovienė G.</i>
26	Ozone interactions in mountain forest environment <i>Bičárová S., Sitková Z., Pavlendová H., Fleischer Jr.P., Buchholcerová A.</i>
27	Seasonal and Spatial Changes of BVOC concentration in forest soils <i>Morishita T., Miyama T., Ono K., Kim Y., Osawa A., Noguchi K., Matsuura Y.</i>
28	The effects of elevated temperature and CO <sub>2</sub> concentration on the toxicity of phenoxy herbicide <i>Žaltauskaitė J., Jakibynaitė A., Sujetovienė G.</i>

### Session 4: Belowground turnover of carbon in forest ecosystems

Poster number	
29	How plant–soil interactions control soil organic matter turnover: Mechanical explanations <i>Adamczyk B., Sietiö O.-M., Straková P., Wild B., Pihlatie M., Fritze H., Richter A., Heinonsalo J.</i>
30	Growth and turnover of ectomycorrhizal mycelium in response to forest nutrient status and local nutrient patches provides a deeper insight into belowground carbon flux responses to forest fertilization <i>Almeida J.P., Rosenstock N.P., Johansson U., Wallander H.</i>
31	Relative importance of honeydew and resin for the microbial activity in wood ant nest and forest floor substrate <i>Jílková V., Cajthaml T., Frouz J.</i>
32	Spatial variability of forest floor thickness and topsoil thickness and their relation to topography, forest site complexes and forest stand age <i>Zamazalová K., Chuman T.</i>

### Session 5: Biogeochemistry of wetlands

Poster number	
33	Species and seasonal effects on the release of root exudates in a spruce swamp forest <i>Edwards K.R., Kaštovská E., Borovec J., Šantrůčková H., Píček T.</i>
34	A comparative view of arctic, temperate and tropical peatlands: Highlights from the MicroPEAT project <i>Mora-Gomez J., Enad M Alajmi F., Jones T., Dunn C., Kang H., Vargas-Rios J.O., Freeman C.</i>
35	Greenhouse gas fluxes from four vernal pools in Maine, USA <i>Kifner L., Amirbahman A., Calhoun A., Norton S.</i>
36	Towards explaining CO <sub>2</sub> and CH <sub>4</sub> production in wetlands: The role of solid and dissolved organic matter <i>Gao Ch., Sander M., Knorr K.-H.</i>
37	Methanogenesis limitations in degraded peatlands after their hydrological restoration <i>Urbanová Z.</i>

38	Resilience of plant population to pollution in an ombrotrophic peatland, Harz Mountains (Germany), over the last 2700 years <i>Galka M., Szal M., Broder T., Loisel J., Knorr K.-H.</i>
39	A two-component mechanistic model of <i>Sphagnum</i> mosses decomposition in West Siberia peatlands <i>Dyukarev E.A., Golovatskaya E.A., Nikonova L.G.</i>
40	Plant-mediated oxidation of the rhizosphere can inhibit methanogenesis in rewetted cutover bogs <i>Agethen S., Waldemer C., Wolff F., Knorr K.-H.</i>
41	$\delta^{15}\text{N}$ values and nitrogen concentrations in peat and corresponding humic acids samples in a peat bog profile, West Siberia <i>Veretennikova E., Golovatskaya E.</i>
42	Use of organic sediments of the Bohemian-Moravian Uplands, Czech Republic, to study climatic change during the past 15,000 years <i>Břízová E.</i>
43	Sediment $\text{CO}_2$ flux from a mangrove in Southern China: Is it controlled by spatial, temporal, biotic or physical factors? <i>Ouyang X., Lee S. Y., Wang W.</i>

## Session 6: Controls on dissolved organic matter fluxes

Poster number	
44	Simulating flow and dissolved organic matter export from nested watersheds during flood events <i>Fair J.H., Saiers J.E., Raymond P.A., Shanley J.</i>
45	Assessing acidity impacts on decomposition rates of litter in organic soils using the Tea Bag Index <i>Pschenyckj C., Evans, C., Clark J., Shaw L., Griffiths R.</i>
46	Dissolved organic carbon cycling and fluxes in rice paddies under different water management practices <i>Said-Pullicino D., Miniotti E., Bertora C., Lerda C., Sodano M., Sacco D., Romani M., Celi L.</i>
47	Use of high temporal and spatial resolution data to explore controls on dissolved organic matter flux in eight nested watersheds in the Passumpsic River Watershed, VT, USA <i>Matt S., Fair J.H., Hosen J., Saiers J.E., Raymond P.A., Shanley J.</i>
48	Dissolved organic carbon dynamics in estuaries – investigation by LC-MS <i>Hawkes J.A., Patriarca C., Berquist J., Tranvik L.</i>

## Session 7: Biogeochemistry of nitrogen

Poster number	
49	Multiyear fate of a $^{15}\text{N}$ tracer in a mixed deciduous forest <i>Goodale C.L.U., Martinez C.E.</i>
50	The fate and effects of elevated N deposition observed over two decades of monthly N addition to a spruce forest at Klosterhede, Denmark <i>Gundersen P.</i>
51	Biogeoclimatic factors affecting nitrogen fertilizer response in coastal Douglas-fir of Pacific Northwest USA <i>Litke K., Turnblom E., Harrison R., Zabowski D.</i>
52	Identifying carbon and nitrogen cycling hotspots in a northern hardwood forest using a hydrogeological framework <i>Pardo L.H., Green M.B., Bailey S.W., McGuire K., Goodale C.L., Groffman P.M.</i>
53	How logging residues of different tree species affect soil nitrogen cycling and losses after final felling <i>Törmänen T., Kitunen V., Lindroos A.-J., Smolander A.</i>
54	Quantification, distribution and major predictors of soil nitrogen content along a range of forest ecosystems and climatic conditions <i>Rodeghiero M., Vesterdal L., Marcolla B., Martinez C., Aertsen W., Vescovo L., Gianelle D.</i>
55	Impact of atmospheric deposition of reactive nitrogen on forests of southern taiga in European Russia <i>Kudrevatykh I.</i>

- 
- 56 Recovery from acidification alters concentrations and fluxes of solutes from Czech catchments  
*Oulehle F., Chuman T., Hruška J., Krám P., McDowell W.H., Myška O., Navrátil T., Tesař M.*
- 
- 57 Deposition of sulphur, inorganic nitrogen and base cations to Norway spruce forests in Sweden: The role of canopy exchange  
*Karlsson P.E., Karlsson G.P., Ferm M., Hellstein S., Hultberg H., Hansen K., Akselsson C.*
- 
- 58 Screening of plant species invading degraded areas with respect to nitrate assimilation capacities  
*Arslan H., Çiçek A., Güteryüz G., Kuşaksiz G.*
- 
- 59 Nitrogen mineralization in the oldest forest communities from eastern Mediterranean  
*Sakar F.S., Güteryüz G.*
- 
- 60 Decreases in nitrate leaching in N saturated andisols under forest in Tokyo  
*Baba M., Okazaki M., Matsuda K., Shima E., Sugiura T., Toyota K.*
- 
- 61 Understanding the biogeochemical controls on dissolved organic nitrogen (DON) in Central European streams  
*Wymore A.S., Krám P., Hruška J., McDowell W.H.*
- 

## Session 8: Cycling of phosphorus in forest, grassland and wetland ecosystems

Poster  
number

- 
- 62 Changes of soil microbial C:N:P stoichiometry and phosphatase activity along afforestation chronosequences in oak, Norway spruce and beech  
*Wang B., Schmidt I.K., Vesterdal L.*
- 
- 63 *In-situ* phosphorus availability in soils: A long-term ion resin study  
*Tahovská K., Čapek P., Kaňa J., Kopáček J., Šantrůčková H.*
- 
- 64 Drought enhances the mobilization of dissolved organic phosphorus (DOP) in the organic layer of forest soils  
*Brödlin D., Kaiser K., Hagedorn F.*
- 
- 65 Phosphorus mobilization from undisturbed forest floor after drying and rewetting  
*Hömberg A., Matzner E.*
- 
- 66 <sup>33</sup>P-labeling of *Chlorella vulgaris* algae for methodical studies  
*Hofmann D., Schiedung H., Ackermann B., Schreiber C., Nedbal L., Amelung W.*
- 

## Session 9: Links between the biogeochemical cycles of C, N, S, P, Ca, Mg, K and Si

Poster  
number

- 
- 67 Short-term effects of biochar on carbon and nitrogen cycling in boreal Scots pine forests  
*Palviainen M., Berninger F., Zhu T., Köster K., Bruckman V., Moreira de Assumpção C.R., Mishra A., Pumpanen J.*
- 
- 68 Carbon and nitrogen fluxes and pools in mature spruce and beech forest ecosystems  
*Růžek M., Oulehle F.*
- 
- 69 Litter respiration during long term incubation correlates with C:N ratio of green foliage better than with C:N ratio of the litter  
*Vicena J., Jilková V., Frouz J.*
- 
- 70 Dynamic modelling of the effects of nitrogen fertilisation on forest soil organic carbon and nitrogen leaching  
*Lucander K., Akselsson C., Olofsson J., Belyazid S., Zanchi G.*
- 
- 71 Phosphorus solubilization by microorganisms at different stages of soil development  
*Brucker E.U., Katkevica S., Spohn M.*
- 
- 72 Spatial and temporal variability in CO<sub>2</sub> and CH<sub>4</sub> fluxes from a small and shallow temperate lake  
*Schmiedeskamp M., Praetzel L., Broder T., Hüttemann C., Jansen L., Metzelder U., Wallis R., Blodau C., Knorr K.-H.*
- 
- 73 Greenhouse gas fluxes during thawing of frozen forest soils with nine levels of antecedent soil moisture  
*Wu H., Xu X., Cheng W., Han L.*
- 
- 74 Modelling the impact of whole-tree harvesting using ForSAFE  
*Erlandsson M., Akselsson C., Belyazid S.*
-

## Session 10: Trace-element and metal biogeochemistry

Poster number	
75	Extreme flooding and conservative behaviour of catchment-wide heavy metal contamination <i>Hurley R.R., Woodward J.C., Rothwell J.J.</i>
76	Biogeochemical plant–soil interactions along a 100 km transect in central Norway <i>Flem B., Reimann C., Eggen O., Andersson M., Finne T.E., Englmaier P.</i>
77	Effect of iron oxyhydroxide extraction on sorption of heavy metals onto soil mineral particles <i>Sipos P., Kovács Kis V., Balázs R., Németh T.</i>
78	The influence of microorganisms on mobilization of arsenic and antimony from mining wastes <i>Juhásová J., Čerňanský S., Šimonovičová A.</i>
79	Uptake and effects of selected heavy metals and REE on <i>Tamarix spp.</i> growing in contaminated soils in Kazakhstan <i>Mętrak M., Sulwiński M., Wilk M., Otarov A., Suska-Malawska M.</i>
80	Where are Al, Fe, and P hidden in fresh water? <i>Porcal P., Pilsová K.</i>
81	Distribution of aluminium forms in acid soils: Influence of forest changes <i>Pavlů L., Drábek O., Stejskalová Š., Tejnecký V., Hradilová M., Nikodem A., Borůvka L.</i>
82	The grain storage of wet-deposited caesium and strontium by spring wheat: A modelling study based on a field experiment <i>Gärdenäs A.L., Berglund S.L., Bengtsson S.B., Rosén K.</i>
83	Mercury contents in the pine needles ( <i>Pinus sylvestris</i> ) of the territory of the Altai region (Russia) <i>Lyapina E.E., Golovatskaya E.A.</i>

## Session 11: Stoichiometry in process-level studies

Poster number	
84	The effect of foliar N fertilization on the root exudation pattern of two plant species with different exploitation strategy <i>Kotas P., Kaštovská E.</i>
85	Microbial diversity and the rhizosphere effect in shallow and deep horizons of a podzolic soil <i>Yevdokimov L., Larionova A., Semenov M., Sokolova T., Tolpeshta I.</i>
86	Relationship between chemical properties of foliage and litter decomposition <i>Frouz J., Vicena J., Jilková V.</i>

## Session 12: Linking biodiversity and biogeochemistry

Poster number	
87	Small deciduous forests function for biodiversity in fragmented agricultural landscapes <i>Brunet J., Hedwell P.-O., Hansen K., Cousins S., Lindgren J.</i>
88	Unravelling the role of ericoid mycorrhizas and charcoal in peatland carbon cycling: Potential of carbon “mining” and negative priming <i>Heinemeyer A., Asena Q., Morton P.A.</i>
89	Climate change compensates for N deposition effects in Austrian forest ecosystems <i>Dirnböck T.</i>
90	Soil fungal community composition in natural <i>Picea abies</i> mountain forest stands with different recovery time since the last historical disturbance <i>Choma M., Bárta J., Kaštovská E., Valtera M., Šantrůčková H., Šamonil P.</i>
91	DOM quality and microbial diversity as affected by litter of plant dominants in a spruce swamp forest <i>Mastný J., Bárta J., Chroňáková A., Borovec J., Kaštovská E., Šantrůčková H., Píček T.</i>
92	Development of vegetation and soils in old fields: A study from Romanian Banat <i>Veselý A., Kovář P., Vojta J., Frouz J.</i>
93	Physicochemical properties of the Aral Sea dried bottom sediments and their microbial ecology <i>Pauditšová E., Čerňanský S., Šimonovičová A., Kraková L., Pangallo D.</i>

- 
- 94 The effect of *Piper aduncum* invasion on soil in tropical ecosystems of Papua New Guinea  
*Kukla J., Frouz J.*
- 
- 95 Occurrence of selected pharmaceuticals and psychoactive compounds and their removal by microorganisms  
*Gašparovičová T., Čerňanský S., Šimonovičová A., Kraková L., Pangallo D., Mackulak T., Grabic R., Grivalský T.*
- 

### Session 13: Weathering and chemical processes as keys to ecosystem functioning

Poster  
number

- 
- 96 Comparing steady-state and dynamic modelling of weathering rates  
*Kronnäs V., Akselsson C., Zanchi G., Olofsson J., Belyazid S.*
- 
- 97 The potential of climate regulating ecosystem service supplied by soil in relation to land use  
*Makovníková J., Pálka B., Barančíková G., Kanianská R., Kizeková M., Skalský R., Tobiášová E.*
- 

### Session 14: Linking microbial communities with element pools and fluxes

Poster  
number

- 
- 98 Effects of warming on nitrogen mineralization processes and microbes involved in subarctic tundra permafrost peatlands  
*Lamprecht R.E., Voigt C., Marushchak m.E., Siljanen H.M.P., Martikainen P.J., Biasi C.*
- 
- 99 Soil bacteria and archaea change rapidly in the first century of Fennoscandian boreal forest development towards N limitation  
*Yarwood S.A., Högberg M.N.*
- 
- 100 Effect of soil warming on microbial respiration, energy production and conversion  
*Zechmeister-Bolternstern S., Keiblinger K.M., Liu D., Wegner U., Sun H., Fuchs S., Lassek C., Riedel K., Schindlbacher A.*
- 
- 101 Microbial community structure and nitrate reduction potential in spruce and beech soils differing in nitrate leaching  
*Bárta J., Tahovská K., Šantrůčková H., Oulehle F.*
- 
- 102 Impacts of N deposition and climate on forest soil carbon: A model verification study  
*Djukic I., Dirnböck T., Kobler J., Gorfer M., Hood-Nowotny R.*
- 
- 103 Effect of water level and nutrient addition on soil–microbes–plant interactions: A mesocosm experiment  
*Cardenas J., Kaštovská E., Bárta J., Kotas P., Edwards K.*
- 
- 104 Influence of waterlogging on bacterial denitrification in topsoils under laboratory conditions  
*Lescure T., Boigne A., Bureau F., Buatois B., Quillet L., Langlois E.*
- 
- 105 Link between SOC stability and microbial activity govern SOC gain in post-agrogenic ecosystems  
*Kurganova I., Merino A., Lopes de Gerenyu V., Barros N.*
- 
- 106 A universal bacterial inoculum for natural dissolved organic carbon biodegradation experiments  
*Pastor A., Catalán N., Gutiérrez C., Nagar N., Casa-Ruiz J.P., Obrador B., von Schiller D., Sabater S., Petrovic M., Borrego C.M., Marcé R.*
- 
- 107 C, S, and N metabolism in chemosynthetic marine nematode symbioses  
*Paredes G.F., Viehböck T., Cardini U., Petersen J., Bulgheresi S.*
- 

### Session 15: The role of dead wood in forest biogeochemistry

Poster  
number

- 
- 108 Long-term deadwood field experiment: BELongDead  
*Borken W., Peršoh D., Noll M., Weisse W.W., Bässler C., Buscot F., Hoppe B., Jehmlich N., Hofrichter M., Kellner H.*
- 
- 109 Is forest management responsible for differences in dissolved organic carbon concentrations in two Oak woodland plots in the UK?  
*Hollands C., Struthers V.L., Sawicka K., Bell M., Clark J.M., Shaw L.J., Vanguelova E.I., Morison J.I.L.*
- 
- 110 Coarse woody debris: Structure, carbon stocks and correlation with living aboveground biomass in coniferous ecosystems in the NorthEast of the East European Plain  
*Osipov A.F., Kutjavin I.N., Kuznetsov M.A., Bobkova K.S.*
- 
- 111 Bark contribution to the total CO<sub>2</sub> fluxes from coarse woody debris in middle taiga: The methodological aspect  
*Kurganova I., Mamai A., Moshkina E., Shorohova E., Romashkin I., Lopes de Gerenyu V.*
-

## Session 16: Traditional and novel isotope systems in the environment

Poster number	
112	Isotope composition of atmospheric NH <sub>3</sub> , NO <sub>x</sub> and SO <sub>2</sub> in the highly polluted Moravia-Silesian region, Czech Republic <i>Buzek F., Čejková B., Hellebrandová L., Jačková I., Lollek V., Lněničková Z., Matoláková R., Veselovský F.</i>
113	Isotope constraints on microbial N <sub>2</sub> -fixation in ombrotrophic peat bogs <i>Čejková B., Novák M., Jačková I., Buzek F.</i>
114	Inventory of cadmium isotopes and ε <sup>114/110</sup> Cd values of materials derived from different industrial processes <i>Martínková E., Čuřík J., Chrastný V., Francová M., Šípková A., Myška O., Mižič L.</i>
115	Natural attenuation of Cr(VI)-contaminated groundwater at two industrial sites in the eastern USA: A Cr isotope study <i>Novák M., Hellerich L.A., Šebek O., Andronikov A., Chrastný V., Čuřík J., Štěpánová M., Pacharová P., Martínková E., Přechová E., Veselovský F.</i>
116	Isotopic composition of carbon and nitrogen in soils and plant biomass from geographically different regions of Mongolia <i>Chibowski P., Gantumur A., Mętrak M., Sulwiński M., Suska-Malawska M.</i>

## Session 17: Archives of past changes in pollution levels/climatic parameters

Poster number	
117	Fish otoliths as short-term records of metal pollution: Examples from Black Angel Pb-Zn mine, Greenland <i>Hansson S.V., Søndergaard J., Bach L., Mosbech A.</i>
118	Tree rings of European larch as a valuable proxy of Hg emissions and depositions <i>Navrátil T., Nováková T., Rohovec J., Matoušková Š.</i>
119	Calcium isotope systematics in small upland catchments affected by spruce dieback in the period of extreme acid rain (1970–1990) <i>Novák M., Farkaš J., Holmden C., Hruška J., Čuřík J., Štěpánová M., Přechová E., Veselovský F., Komárek A.</i>

## Session 18: Extreme events and ecosystem health

Poster number	
120	Monitoring the state of forest and its importance in Europe and beyond <i>Sanders T.G.M.</i>
121	Defoliating insect mass infestation affects soil N turnover and tree N nutrition in Scots pine forests <i>Grüning M.M., Simon J., Rennenberg H., Arnold A.L.M.</i>
122	Shifting impacts of climate change: Long-term patterns of plant response to elevated CO <sub>2</sub> , drought and warming across ecosystems <i>Andresen L.C., Müller C., de Dato G., Dukes J.S., Emmett B.A., Estiarte M., Jentsch A., Kröel-Dulay G., Lüscher A., Niu S., Peñuelas J., Reich P., Reinsch S., Ogaya R., Schmidt I.K., Schneider M.K., Sternberg M., Tietema A., Zhu K., Bilton M.C.</i>
123	Extreme climate considerably reduces a CO <sub>2</sub> fluxes from continental temperate soils: The results of manipulation experiment <i>Kurganova I., Lopes de Gerenyu V., Khoroshaev D.</i>
124	Air quality impacts of SO <sub>2</sub> emissions from the 2014-2015 eruption of Bárðarbunga volcano, Iceland, observed in Sweden <i>Hellsten S., Gustafsson M., Karlsson G.P., Karlsson P.E., Akselsson C.</i>
125	Identification of drought stress of forest trees using the leaf turgor pressure <i>Budach C.</i>

## Session 19: Subarctic and arctic environments

Poster number	
126	Response of plants communities to changes in climate and fire regime over last 2000 years: Palaeoecological insights from arctic peatlands in Alaska <i>Galka M., Swindles G.T., Szal M., Feurdean A.</i>
127	Methane fluxes from wetlands and lakes of southern tundra in Western Siberia <i>Golubyatnikov L.L., Zarov E.A.</i>

- 
- 128 Soil CO<sub>2</sub> efflux in different ecosystems during the growing season in a boreal region of Central Siberia  
*Makhnykina A.V., Prokushkin A.S., Verkhovets S.V.*
- 
- 129 Seed germination strategies of three *Allium* species from the subalpine and alpine belt of the Uludağ mount for future *ex situ* conservation  
*Kirmizi S., Gülerü G., Arslan H.*
- 
- 130 Bulk density determination method for upper peatland layer (results from Mukhrino field station, Western Siberia)  
*Zarov E.A., Lapshina E.D., Bleuten W.*
- 

## Session 20: Ecosystem restoration/rehabilitation/management

- Poster  
number
- 
- 131 Marginal lands – ecological limitations and economic potentials  
*Gerwin W., Repmann F., Freese D., Baumgarten W., Ivanina V.*
- 
- 132 Forest ditch maintenance affects runoff quality and benthic macro invertebrates  
*Hansen K., Zetterberg T.*
- 
- 133 Eleven years of nitrogen but not sulfur deposition changed understory species composition in a boreal forest  
*Kwak J.-H., Chang S.X., Naeth M.A.*
- 
- 134 Influence of alders (*Alnus sp.*) on physico-chemical parameters of technosols developed on a lignite combustion waste disposal site  
*Woś B., Pietrzykowski M., Chodak M., Pajqk M., Wanic T., Krzaklewski W.*
- 
- 135 Application of X-ray fluorescence spectrometry for element content determination in a forest Podzol affected by different processing of tree-logging residues and mechanical soil preparation  
*Borůvka L., Němeček K., Remeš J., Tejnecký V., Drábek O.*
- 
- 136 Impact of crystallization of iron and aluminum hydroxides on the mechanisms of phosphate binding  
*Gypser S., Slazak A., Freese D.*
- 
- 137 Nematode communities during experimental reclamation of an afforested rock quarry near Brno, Czech Republic  
*Benetková P.*
- 
- 138 Nutrient cycling in plant–soil interaction in reclaimed alder plantations and succession sites after coal mining  
*Šimáčková H., Veselá M., Cejpek J., Frouz J.*
-