

EGU General Assembly 2012

Programme Group Programme

BG – Biogeosciences

Monday, 23 April	2
BG1.1	2
BG2.2	2
BG2.3	4
BG2.9	6
NH7.3/AS4.3/BG2.25/ESSI1.8/NP4.6/SSS5.24	7
SSS3.4/BG2.26/OS3.5	10
BG4.1	11
BG4.2	12
BG4.3	12
BG5.1	13
SSS6.2	14
Tuesday, 24 April	16
BG1.2/IG13	16
BG1.4	19
CL1.16/AS4.1/BG2.12/IG15	20
AS4.4/BG2.16	22
BG5.2	23
BG7.2	26
OS4.5	27
Wednesday, 25 April	29
BG2.1	29
BG2.8	30
BG2.15	31
HS10.5/BG2.21	33
NP3.4/BG2.23/SSS1.7	34
SSS3.6/BG2.24	35
BG3.1	37
BG3.2	39
CL5.7/AS4.22/BG6.4/GM2.6	40
BG7.1	41
CL4.3	44
GM4.2	47
GM4.3	49
SSS2.3	49
SSS7.3	50
Thursday, 26 April	53
BG1.7	53
GM4.4/BG1.8	54
BG2.5	56
AS4.5/BG2.17/CL2.6	58
BG6.2	61
BG6.3/CL5.14/SSP5.4	63
SSP3.3	64
Friday, 27 April	65
BG1.6	65
BG2.4	67
BG2.6	68
BG2.11	70
CL4.8/BG2.22	71
HS10.8/BG4.4	72
BG8.1	76
HS8.3.3	76
HS10.2/GM8.2	78
SSS7.7	80
SSS8.1	81

Monday, 23 April

BG1.1 – Open session on Biogeosciences (Posters only) – Posters

Convener: G.-J. Reichart | Co-Conveners: J. Kesselmeier, J. Middelburg, A. Benthien, A. Boetius, A. Ridgwell, T. J. Battin, M. E. Böttcher, Dr Glatzel, E. Javaux

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: G.J. Reichart

- BG1 EGU2012-938
L.E. Street, N.R. Burns, and S.J. Woodin
Significant impacts of nutrient enrichment on High Arctic vegetation and soils despite two decades of recovery
- BG2 EGU2012-9119
L. Jackson-Blake, R.C. Helliwell, A.J. Britton, S. Gibbs, M.C. Coull, and L. Dawson
Controls on soil solution nitrogen along an altitudinal gradient in the Scottish uplands
- BG3 EGU2012-1278
J. C. Casagrande, M. R. Soares, and M. I. M. Moraes
Zinc and Liming Effects on the Development of Cerrado Forest Species
- BG4 EGU2012-6700
J. Kallmeyer, C. Glombitza, and PaleoVAN Scientific Party
Sulfate reduction and microbial abundance in saline, alkaline Lake Van (Eastern Anatolia, Turkey) - ICDP Expedition 5034
- BG5 EGU2012-7959
R. R. Adhikari, J. Nickel, and J. Kallmeyer
Quantification of microbial activity in subsurface environments using a hydrogenase enzyme assay
- BG6 EGU2012-9040
R.A. Müller, E. Podgrajsek, D. Kothawala, and G.A. Weyhenmeyer
High frequency measurements of optical lake water properties: Is there a seasonal pattern?
- BG7 EGU2012-348
A. Ali, C.A.J.M. de Bie, A.K. Skidmore, and R.G. Scarrott
Detection of long duration cloud contamination in hyper-temporal NDVI imagery
- BG8 EGU2012-10450
C. Mendez and B. Bilbao
Plausibility of New Paradigms in Terrestrial Nitrogen Cycle
- BG9 EGU2012-10583
M. Brandt, C. Samimi, C. Romankiewicz, and R. Spiekermann
Detecting environmental change using time series, high resolution imagery and field work - a case study in the Sahel of Mali
- BG10 EGU2012-10743
J. Radoux, M. Hernandez, and P. Defourny
Change detection in and around UNESCO World Heritage sites including tropical forests
- BG11 EGU2012-12104
G. Anagnostopoulos, M. Basta, Z. Stefanakis, A. Vgontzas, S. Koutsomitros, G. Papadopoulos, V. Vassiliadis, and A. Rigas
Correlation between seismicity and episodes of psychotic disorders
- BG12 EGU2012-13557
M. Amosov, I. Moskalenko, **M. Syromyatina**, and M. Mukhanova
Climatic conditionality of world vegetation zones and paleovegetation zone reconstructions
- BG13 EGU2012-13856
Y. Delmotte, H. Laroumanie, and G. Brossard
Optimization and Use of 3D sintered porous material in medical field for mixing fibrin glue.

BG2.2 – Towards a full GHG balance from the biosphere. How important are N₂O and CH₄ emissions in different ecosystems? How difficult is it to measure and to model their emission? – Orals

Convener: D. Zona | Co-Conveners: K. Pilegaard, T. Vesala

Room: 23

Chairperson: D. Zona, K. Pilegaard

- 10:30–10:45 EGU2012-2382
J. Hartmann and T. Sachs
Airborne Measurements of Methane Fluxes over Mid-Latitude and Sub-Arctic Wetlands
- 10:45–11:00 EGU2012-1099
T. zenone
CO₂ CH₄ and N₂O fluxes during land conversion in early bioenergy systems

- 11:00–11:15 EGU2012-2167
H. Lee, T. Rahn, and H. Throop
 Temperature sensitivity of CO₂, CH₄, CO, and H₂ release during photodegradation of organic material
- 11:15–11:30 EGU2012-2425
A.M.R. Petrescu, L.P.H. van Beek, J. van Huissteden, C. Prigent, T. Sachs, C.A.R. Corradi, F.J.W. Parmentier, and A.J. Dolman
 Modelling regional to global CH₄ emissions of boreal and arctic wetlands
- 11:30–11:45 EGU2012-7938
Y. A. Teh, T. Diem, S. Jones, V. Oliver, E. Baggs, P. Smith, M. Richards, and P. Meir
 Sources and sinks of methane and nitrous oxide in the tropical Andes

LUNCH BREAK

Chairperson: T. Vesala

- 13:30–13:45 EGU2012-10269
R. S. Massad, V. Prieur, R. Thompson, M. Schultz, I. Pison, P. Bousquet, M. Schmidt, M. Lopez, E. Boukari, S. Lehuger, F. Chaumartin, and B. Gabrielle
 Simulations of N₂O concentrations for France using ecosystem models, emission databases and an atmospheric transport model
- 13:45–14:00 EGU2012-9940
A. Lohila, T. Laurila, T. Aalto, and T. Vesala
 A synthesis of CH₄ and N₂O fluxes in European terrestrial and wetland ecosystems
- 14:00–14:15 EGU2012-8843
G.J. Luo, N. Brüggemann, B. Wolf, R. Gasche, and K. Butterbach-Bahl
 Decadal variability of soil CO₂, NO, N₂O, and CH₄ fluxes at the Hoeglwald Forest, Germany
- 14:15–14:30 EGU2012-7140
LM Merbold and GW Wohlfahrt
 Greenhouse gas emissions from grasslands: current knowledge and challenges
- 14:30–14:45 EGU2012-14136
H.F. Jungkunst¹, D. Grunwald, A.-C. Fender, S. Fiedler, and S. Erasmí
 Hydromorphic soils easily unbalance GHG balances from forests: A focus on Europe
- 14:45–15:00 EGU2012-8295
M.E. Marushchak, C. Biasi, V. Elsakov, S. Jokinen, S.E. Lind, A. Pitkämäki, T. Virtanen, and P.J. Martikainen
 Greenhouse gas balance of a subarctic tundra - importance of carbon dioxide, methane and nitrous oxide from different land cover types
- 15:00–15:15 EGU2012-12255
K. Soosaar, M. Maddison, J.O. Salm, J. Järveoja, R. Hansen, and Ü. Mander
 The Regulation of CH₄ and N₂O fluxes by Wetlands at Landscape Level

BG2.2 – Towards a full GHG balance from the biosphere. How important are N₂O and CH₄ emissions in different ecosystems? How difficult is it to measure and to model their emission? – Posters

Convener: D. Zona | Co-Conveners: K. Pilegaard, T. Vesala

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Zona, Pilegaard, Vesala

- BG14 EGU2012-13917
 A. Machon, **B. Grosz**, L. Horváth, T. Weidinger, K. Pintér, Z. Nagy, and E. Führer
 Variability of nitrogen exchange between the atmosphere and a semi-natural grassland in Hungary
- BG15 EGU2012-13655
I. Hawthorne, M.S. Johnson, R. Jassal, T.A. Black, and C. Webster
 Soil Greenhouse Gas Flux Measurements in a Pacific Northwestern Douglas-fir Forest
- BG16 EGU2012-13595
J.-A. Morguí, X. Rodó, R. Curcoll, A. Agueda, L. Sánchez, P. Occhipinti, M. Nofuentes, R. Arias, and O. Batet
 High spatial patchiness of methane concentrations over the flat landscape of the Ebro River Delta (NW Mediterranean)
- BG17 EGU2012-12294
G. Nicolini, P. Stefani, and R. Valentini
 A preliminary assessment of methane fluxes from a tropical rain forest in Africa

- BG18 EGU2012-10422
R. S. Massad, V. Prieur, E. Boukari, S. Lehuger, F. Chaumartin, M. Schultz, and B. Gabrielle
Estimating agricultural N₂O emissions in France: comparison of a spatialized agro-ecosystem model (CERES-EGC) and a terrestrial biosphere model (O-CN)
- BG19 EGU2012-4983
R. Felber, C. Ammann, and A. Neftel
Greenhouse gas exchange over grazed systems
- BG20 EGU2012-5407
F.J.W. Parmentier and T.R. Christensen
The Role of Sea Ice Extent in High Latitude Greenhouse Gas Exchange
- BG21 EGU2012-2229
D. Zona, I. Janssens, and R. Ceulemans
Full greenhouse gas balance (CO₂, N₂O, CH₄) of a bioenergy plantation (POPFULL) converted from agriculture and pasture: carbon debt and climate sensitivity
- BG22 EGU2012-7171
E. Díaz-Pinés, B. Wolf, R. Kiese, and K. Butterbach-Bahl
Towards accurate assessments of CH₄ and N₂O soil-atmosphere exchange rates with the combination of automated systems and new detection techniques
- BG23 EGU2012-995
L. Pitombo, H. Cantarella, A. Packer, N. Ramos, M. de Lima, and J. Carmo
Straw management and greenhouse gas emissions in sugarcane cropping in São Paulo State, Brazil
- BG24 EGU2012-1630
S. Yamulki, R. Anderson, A. Peace, and J.I.L. Morison
Effect of drainage and restoration on soil CO₂, CH₄ and N₂O fluxes from a lowland raised peatbog in Scotland
- BG25 EGU2012-3081
D. R. Cameron, M. van Oijen, K. Butterbach-Bahl, G. Heuvelink, R. Kiese, M. Kuhnert, J. Kros, A. Leip, G. J. Reinds, M. J. Schelhaas, W. de Vries, C. Werner, and J. Yeluripati
Global change impacts on the C- and N-cycle of European forests: A model comparison study
- BG26 EGU2012-5391
P. Vestin, M. Mölder, E. Sundqvist, M. Hellström, A. Båth, P. Weslien, L. Klemetsson, and A. Lindroth
Towards a Full Greenhouse Gas Budget at a Clear-Cut and Stump Harvested Boreal Forest Site in Sweden
- BG27 EGU2012-5398
S. Ullah and T. Moore
Greenhouse Gas Fluxes from Deciduous and Boreal Forest Soils in Eastern Canada
- BG28 EGU2012-5432
M. Ferlicoq, E. Ceschia, **A. Brut**, and A. VandeWalle
Assessment of the GHG budget mitigation potential of intercrops: analysis on several trials and intercrops species in the Southwest of France.
- BG29 EGU2012-7151
R. Fuß, R. Dechow, and H. Flessa
Using Monte Carlo simulations to estimate model bias of flux calculation from static chamber measurements
- BG30 EGU2012-8134
L. Hörtnagl and G. Wohlfahrt
Interannual and seasonal variability of CH₄ and N₂O exchange over a temperate mountain grassland
- BG31 EGU2012-9582
M. Andres, U. Hagemann, M. Pohl, M. Sommer, and J. Augustin
Contribution of nitrous oxide and methane to the overall climate impact of maize on well-drained sandy soils of north-east Germany
- BG32 EGU2012-10998
R. Dechow and A. Freibauer
Responses of direct N₂O emissions from agricultural mineral soils on natural conditions and management - a multi site analysis across Europe
- BG33 EGU2012-11302
K. Rueangritsarakul, M. Jones, B. Roth, M. Abdalla, and **M. Williams**
Changes in Soil Moisture, Microbial Biomass, Mineralization and Nitrification Explain Increases in N₂O Emissions from a Spring Barley Crop Under Combined Reduced Tillage and Cover Crop Management
- BG34 EGU2012-6352
K. Leiber-Sauheitl, R. Fuß, and A. Freibauer
Small scale soil carbon and moisture gradients in a drained peat bog grassland and their influence on CO₂, CH₄ and N₂O fluxes
- BG35 EGU2012-11856
C. Ammann, L. Horváth, S.K. Jones and the NitroEurope Grassland Team
Greenhouse gas budgets of managed European grasslands

BG2.3 – Patterns and drivers of GHG assimilation and release in natural and agricultural ecosystems – Orals

Convener: L. Montagnani | Co-Conveners: P.C.S. Stoy, d. zanotelli, M. Wattenbach, W. L. Kutsch, P Smith, C. Brümmer, LM Merbold

Room: 23

Chairperson: Montagnani, Stoy, Merbold; Kutsch, Bruemmer

- 15:30–15:45 EGU2012-14419
M Mencuccini, T Hölttä, S Sevanto, and E Nikinmaa
 Can plant phloem properties affect the link between ecosystem assimilation and respiration?
- 15:45–16:00 EGU2012-14425
T. Wang
 Systematic errors in a land surface model across biomes inferred from eddy covariance observations on multiple time scales
- 16:00–16:15 EGU2012-277
M. van Oijen
 On the relative magnitudes of photosynthesis, respiration, growth and carbon storage in vegetation
- 16:15–16:30 EGU2012-2165
N.A. Trahan, D.J.P. Moore, P. Wilkes, T. Quaife, A.R. Desai, J. Negron, B.B. Stephens, K. Elder, B.H. Brayden, and R.K. Monson
 Changes in carbon balance after insect disturbance in Western U.S. forests
- 16:30–16:45 EGU2012-14319
 J. Hillier, F. Brentrup, **M. Wattenbach**, C. Walter, T Garcia-Suarez, L Mila-i-Canals, and P Smith
 Which cropland greenhouse gas mitigation options give the greatest benefits in different world regions? Climate and soil specific predictions from integrated empirical models
- 16:45–17:00 EGU2012-10059
 E. Black, **P.L. Vidale**, A. Verhoef, and S.V. Cuadro
 The environmental sustainability of sugarcane cultivation under scenarios of climate change: case studies for Brazil and Ghana

BG2.3 – Patterns and drivers of GHG assimilation and release in natural and agricultural ecosystems – Posters

Convener: L. Montagnani | Co-Conveners: P.C.S. Stoy, d. zanotelli, M. Wattenbach, W. L. Kutsch, P Smith, C. Brümmer, LM Merbold

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Wattenbach, Kutsch, Zanotelli; Montagnani

- BG36 EGU2012-5754
B.R.K. Runkle, T. Sachs, C. Wille, E.-M. Pfeiffer, and L. Kutzbach
 Separating direct temperature responses from phenological control of gross photosynthesis during the short tundra growing season: measurements and process modeling from the Lena River Delta, Russia
- BG37 EGU2012-14373
M Larjavaara and H C Muller-Landau
 The potential impacts of increasing temperatures on old-growth forest biomass density
- BG38 EGU2012-13140
G. Guidolotti, D. Liberati, G. de Dato, and P. De Angelis
 Impact of drought stress on photosynthetic and respiratory C fluxes in a Mediterranean shrubland
- BG39 EGU2012-519
M. Matteucci, A. Cescatti, C. Gruening, I. G. Ballarin, S. Guenther, F. Magnani, C. Nali, and G. Lorenzini
 Partitioning soil CO₂ fluxes by tree-girdling in a Mediterranean (Pinus pinaster) ecosystem reveals a different response of autotrophic and heterotrophic components to environmental variables and photosynthesis under drought conditions
- BG40 EGU2012-1250
F. Minunno, M. van Oijen, D.R. Cameron, S. Cerasoli, J.S. Pereira, and M. Tomé
 Analysing structural error and parameter uncertainty of two Eucalyptus models differing in representation of autotrophic respiration
- BG41 EGU2012-3865
J.-F. Exbrayat, A.J. Pitman, G. Abramowitz, and Y.-P. Wang
 Exploring the uncertainty in the parameterisation of soil heterotrophic respiration processes in the CABLE land surface model
- BG42 EGU2012-13044
K. Klem, O. Urban, P. Holub, and P. Rajsnerova
 The effect of carbohydrate accumulation and nitrogen deficiency on feedback regulation of photosynthesis in beech (Fagus sylvatica) under elevated CO₂ concentration

- BG43 EGU2012-170
A. Angert, J. Muhr, R. Negron Juarez, W. Alegria Muñoz, J.Q. Chambers, and S.E. Trumbore
Amazon tree stems respiration: Is the O₂ influx a better measure?
- BG44 EGU2012-4803
M. Acosta and M. Pavelka
Vertical profile of branch CO₂ efflux in a Norway spruce tree: a case study
- BG45 EGU2012-5882
M. Hurkuck, C. Brümmer, and W.L. Kutsch
Seasonality of atmospheric nitrogen deposition at a semi-natural peatland site
- BG46 EGU2012-9229
TP Kandel, L. Elsgaard, and P.E. Lærke
How does a land use change from annual food crop to perennial energy crop affect the CO₂ balance? A study on net ecosystem exchange of carbon dioxide from Danish fen peatland grown with spring barley and reed canary grass
- BG47 EGU2012-9718
E. Jérôme, Y. Beckers, B. Bodson, C. Moureaux, and M. Aubinet
Carbon balance of a grazed grassland in Belgium
- BG48 EGU2012-14321
W. Kutsch, L. Merbold, B. Scholes, and M. Mukelabai
Will savannas survive outside the parks? A lesson from Zambia
- BG49 EGU2012-13610
D. Chatskikh, C. Nendel, U. Hagemann, X. Specka, J. Augustin, M. Sommer, and K. Van Oost
An approach to assess NEE and C-costs associated with an energy-crop production at different erosion-induced transient states in a typical Northeastern Germany landscape using process-based agroecosystem modeling
- BG50 EGU2012-13877
J. Carmo, L. Pitombo, H. Cantarella, R. Rosseto, C. Andrade, L. Martinelli, G. Gava, V. Vargas, E. Sousa-Neto, L. Zotelli, S. Filoso, and A.E. Neto
Greenhouse Gas Emissions from Brazilian Sugarcane Soils
- BG51 EGU2012-1636
T. Tallec, V. Rivalland, N. Jarosz, G. Boulet, P. Gentine, and E. Ceschia
Evaluation of a simple method for crop evapotranspiration partitioning and comparison of different water use efficiency approaches
- BG52 EGU2012-5883
K. Walter, A. Don, and H. Flessa
Greenhouse gas fluxes during growth of different bioenergy crops
- BG53 EGU2012-3339
G. Yan
The N₂O and NO emissions of three types of agricultural system in North China Plain
- BG54 EGU2012-3837
Q. Zhang, H. Lei, **D. Yang**, and H. Yang
Factors controlling the temporal variation of soil respiration in a typical cropland over the North China Plain
- BG55 EGU2012-6153
C. Berridge
Carbon-water coupling
- BG56 EGU2012-7442
M. Deppe, R. Manderscheid, R. Well, H.-J. Weigel, and H. Flessa
Effect of experimental summer drought on greenhouse gas fluxes from soil under corn and sorghum

BG2.9 – Bridging Ecosystem Science to Service and Stewardship – Posters

Convener: J. Tenhunen | Co-Conveners: C. Fürst, D. S. Luque, P. B. Huwe

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: John Tenhunen

- BG57 EGU2012-469
C. Fürst, K. Pietzsch, S. Frank, L. Koschke, A. Witt, and F. Makeschin
Managing a sustainable ecosystem service provision in a regional context
- BG58 EGU2012-1269
J. Tenhunen, B. Huwe, B. Kim, J. Kim, T. Nguyen, V.D. Pham, B. Reineking, B. Seo, H. Shin, and C. Shope
Linking Terrestrial and Reservoir-related Economic Services at Regional Scale: A Case Study in the Soyang Watershed of South Korea

- BG59 EGU2012-4012
K. A. Vanselow, C. Samimi, T. Kraudzun, and H. Kreutzmann
Human-Nature Interaction in the Eastern Pamirs of Tajikistan - Ecosystem services against the background of pasture use and energy consumption
- BG60 EGU2012-4637
S. Arnhold and B. Huwe
Strategies to develop and evaluate soil conservation measures for complex mountainous farmland in South Korea
- BG61 EGU2012-5323
A. Simon, E. Ivanov, M. Anaya-Romero, and J-L Weber
Proposal methodology for Land Carbon Accounting across Europe
- BG62 EGU2012-7205
C. L. Shope, J. Tenhunen, and S. Peiffer
Linking Local Scale Ecosystem Science to Regional Scale Management
- BG63 EGU2012-13973
T.T. Nguyen, J. Tenhunen, V.N. Hoang, T. Koellner, H. Shin, V.D. Pham, and B. Seo
Efficient Use of Terrestrial Economic Services: A Case Study in South Korea

NH7.3/AS4.3/BG2.25/ESS1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Orals

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L Boschetti

Room: D

Chairperson: n.n.

- 08:30–08:45 EGU2012-1162
C. D. Vega Orozco, M. Kanevski, J. Golay, M. Tonini, and M. Conedera
Multifractal analysis of forest fires in complex regions
- 08:45–09:00 EGU2012-2092
M. Kanevski, A. Champendal, C. Vega Orozco, M. Tonini, and M. Conedera
A new concept of wildland-urban interface based on city clustering algorithm
- 09:00–09:15 EGU2012-6519
T. Penman, **R. Bradstock**, G. Caccamo, and O. Price
Developing a probabilistic fire risk model and its application to fire danger systems
- 09:15–09:30 EGU2012-11497
D. Oom, I. Bistinas, A. C. L. Sa, and J.M.C. Pereira
Continental spatial non-stationarity of fire-human relationship using GWR
- 09:30–09:45 EGU2012-13822
M. Long, A. Ganteaume, M. Jappiot, G. Andrienko, and N. Andrienko
Analysis of fire causes spatial and temporal distribution in France
- 09:45–10:00 EGU2012-12008
Y. Zhang, D. Obrist, B. Zielinska, and A. Gerler
Emissions of carbon species, organic polar compounds, potassium, and mercury from prescribed burning activities

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-3335
A. Bastos, C. M. Gouveia, R. M. Trigo, and C. C. DaCamara
Vegetation recovery assessment following large wildfires in the Mediterranean Basin
- 10:45–11:00 EGU2012-13785
T. Brown, C. Kolden, and J. Abatzoglou
Assessing fuels treatments in the context of climate change
- 11:00–11:15 EGU2012-12648
T. Calheiros, M.G. Pereira, T.J. Calado, C.C. Dacamara, and J.G. Pinto
Potential effects of regional climate change on rural fires over Europe
- 11:15–11:30 EGU2012-3852
R. Bradstock, M. Boer, T. Penman, and O. Price
Divergent responses of fire to recent climate change: evidence from bio-regional patterns across south-eastern Australia

- 11:30–11:45 EGU2012-1967
D. Cane, C. Wastl, S. Barbarino, L. Renier, C. Schunk, and A. Menzel
 Evaluation of fire potential in the climatic scenario: an Alpine area perspective
- 11:45–12:00 EGU2012-7340
A. Shvidenko and D. Schepaschenko
 Wildfire in Northern Eurasia and climate change
- Chairperson: n.n.
- 15:30–15:45 EGU2012-3173
I. Csizar, W. Schroeder, L. Giglio, E. Ellicott, and C.O. Justice
 A comparison of remote sensing of active fires from MODIS and VIIRS
- 15:45–16:00 EGU2012-11107
G. Ruecker, E. Lorenz, A.A. Hoffmann, D. Oertel, and J. Tiemann
 A mission concept for a dedicated Fire Monitoring Constellation of small satellites based on the BIRD heritage
- 16:00–16:15 EGU2012-12485
C. C. DaCamara, R. Libonati, A. Barros, G. Gaspar, and T. J. Calado
 Using MODIS imagery to assign dates to maps of burn scars in Portugal
- 16:15–16:30 EGU2012-8366
r. Paugam, m. Wooster, s. Freitas, s. Gonzi, and p. Palmer
 Parameterization of Fire Injection Height in Large Scale Transport Model
- 16:30–16:45 EGU2012-9558
E. Athanasopoulou, C. Giannakopoulos, H. Vogel, D. Rieger, C. Knote, M. Hatzaki, B. Vogel, and A. Karali
 Fire risk and air pollution assessment during the 2007 wildfire events in Greece using the COSMO-ART atmospheric model
- 16:45–17:00 EGU2012-10521
J.W. Kaiser, A. Benedetti, R. Detmers, A. Heil, J.-J. Morcrette, M.G. Schultz, G.R. van der Werf, M.J. Wooster, and W. Xu
 Assimilation of FRP Observations for Global Fire Emission Estimation in MACC-II

NH7.3/AS4.3/BG2.25/ESS1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Posters

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L. Boschetti

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY281 EGU2012-14135
 N.J. Gonçalves, **M.G. Pereira**, P. Fernandes, C. Loureiro, C.C. DaCamara, and M.T. Calado
 Landscape-structure metrics influence on fire size distribution in Portugal
- XY282 EGU2012-12208
 R. Costa, **M.G. Pereira**, L. Caramelo, C. Vega Orozco, and M. Kanevski
 Spatio-temporal clustering of wildfires in Portugal
- XY283 EGU2012-779
E. Íñiguez-Remón, D. Badía-Villas, and P. Ibarra-Benlloch
 Spatial and temporal changes in land cover and its relation to the wildfire risk in Montes de Zuera (NE-Spain)
- XY284 EGU2012-12737
Panagiota Papakosta, Florian Klein, Simon König, Stefan Peters, and Daniel Straub
 Linking spatio-temporal data to the Fire Weather Index to estimate the probability of wildfire in the Mediterranean
- XY285 EGU2012-11226
B. Arca, G. Pellizzaro, A. Canu, G.V. Pintus, R. Ferrara, and P. Duce
 An analysis on Wildland Urban Interface in North Sardinia
- XY286 EGU2012-9852
C.M. Gouveia, A. Bastos, R.M. Trigo, and C. DaCamara
 Drought impact on vegetation in pre and post fire events in Iberian Peninsula
- XY287 EGU2012-12172
V. Bacciu, G. Pellizzaro, P. Santoni, B. Arca, A. Ventura, M. Salis, T. Barboni, V. Leroy, D. Cancellieri, E. Leoni, L. Ferrat, Y. Perez, P. Duce, and D. Spano
 Fuel type characterization and potential fire behavior estimation in Sardinia and Corsica islands
- XY288 EGU2012-2419
D. Cane, A. Arpaci, M. Conedera, E. Valse, S. Barbarino, H. Vacik, and G.B. Pezzatti
 Suitability of different Fire Weather Indices for alpine conditions: an extensive evaluation with high resolution data

- XY289 EGU2012-8422
C. Schunk, C. Wastl, M. Leuchner, C. Schuster, and A. Menzel
Forest fire danger indices under extreme meteorological conditions in a complex topography - the situation in the Bavarian Alps in autumn 2011
- XY290 EGU2012-13793
K. Koster, J. Pumpanen, and F. Berninger
Recovery of soil carbon and nitrogen pools following forest fires in eastern Lapland, Finland.
- XY291 EGU2012-10307
A. Ganteaume, M. Jappiot, and C. Lampin
Assessing and ranking the flammability of some ornamental plant species to select firewise plants for landscaping in WUI (SE France).
- XY292 EGU2012-597
E. Shvetsov
The Correlation Analysis of Fire Energy Release and Weather Conditions
- XY293 EGU2012-13648
M. Amraoui, C.C. DaCamara, and S.L. Ermida
An algorithm to detect fire activity using Meteosat: fine tuning and quality assesment
- XY294 EGU2012-3196
I. Csizsar, C.O. Justice, E. Prins, W. Schroeder, C. Schmidt, and L. Giglio
Fire Monitoring from the New Generation of US Polar and Geostationary Satellites
- XY295 EGU2012-11870
G. Mazzeo, C. Filizzola, I. Coviello, F. Marchese, R. Corrado, T. Lacava, R. Paciello, N. Pergola, and V. Tramutoli
Performance assessment of a Robust Satellite Techniques (RST-FIRES) for forest fire detection and monitoring
- XY296 EGU2012-1704
S. Veraverbeke and S. Hook
Evaluating spectral indices and spectral mixture analysis for assessing fire severity and adjusting burning efficiency using Landsat data
- XY297 EGU2012-1705
S. Veraverbeke, S. Hook, and G. Hulley
A single date SWIR-MIR index (SMI) for rapid fire severity assessments
- XY298 EGU2012-10622
T. Thonat, C. Crevoisier, A. Chédin, R. Armante, L. Crépeau, and N. A. Scott
Study of biomass burning emissions with Aqua/AIRS and MetOp-A/IASI
- XY299 EGU2012-7916
C. Kontoes, I. Papoutsis, D. Michail, Th. Herekakis, M. Koubarakis, K. Kyzirakos, M. Karpathiotakis, C. Nikolaou, M. Sioutis, G. Garbis, S. Vassos, **I. Keramitsoglou**, M. Kersten, S. Manegold, and H. Pirk
Wildfire monitoring via the integration of remote sensing with innovative information technologies
- XY300 EGU2012-8868
I. Berdufi, O. Jaupaj, M. Marku, M. Deda, E. Fiori, M. D'Andrea, G. Biondi, P. Fioruci, M. Massabò, P. Zorba, and M. Gjonaj
Bulletin of Forest Fire risk in Albania- The experience of the Albania National Centre for forecast and Monitoring of Natural Risks
- XY301 EGU2012-525
V. Rakitin, A. Safronov, L. Yurganov, E. Fokeeva, E. Grechko, and A. Dzhola
CO atmospheric pollution of Moscow area during wild fires in summer 2010, estimates of emissions and their uncertainties
- XY302 EGU2012-1254
N. Ursino and M.C. Rulli
Hydrological minimal model for fire regime assessment in Mediterranean ecosystem
- XY303 EGU2012-7298
O. Stein, J.W. Kaiser, A. Heil, and M.G. Schultz
Model sensitivity to global fire emissions: GFED versus GFAS
- XY304 EGU2012-7945
M.J.M. Penning de Vries, O.N.E. Tuinder, T. Wagner, and M. Fromm
Calculation of smoke plume mass from passive UV satellite measurements by GOME-2 polarization measurement devices
- XY305 EGU2012-10052
M. Salis, B. Arca, A. Ager, C. Fois, V. Bacciu, P. Duce, and D. Spano
Extreme Wildfire Spread and Behaviour: Case Studies from North Sardinia, Italy
- XY306 EGU2012-6855
C.I. Mason, G.J. Sheridan, H.G. Smith, O. Jones, D. Chong, and K. Tolhurst
FIRESTORM: Modelling the water quality risk of wildfire.

- XY307 EGU2012-13343
M. D'Andrea, P. Fiorucci, G. Biondi, and D. Negro
 PROPAGATOR: a synchronous stochastic wildfire propagation model with distributed computation engine
- XY308 EGU2012-11419
J. Mandel, A. K. Kochanski, V. Y. Kondratenko, and J. D. Beezley
 Coupled atmosphere-fire modeling with data assimilation for 2007 Santa Ana fires
- XY309 EGU2012-4307
V. Khan
 Long-range forecasting of forest fire danger index based on PLAV model outputs

SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Orals

Convener: S. Abiven | Co-Conveners: T. Dittmar, M. W. I. Schmidt

Room: 3

Chairperson: Samuel Abiven

- 13:30–13:45 EGU2012-818
C.A. Masiello, B. Dugan, K. Zygourakis, H. Gonnermann, Z. Liu, K.L. Ziegelgruber, and V.J. Chuang
 Physical controls on organic matter stability
- 13:45–14:00 EGU2012-13952
K. Wolf, R. Bol, J.A.J. Dungait, L. Dixon, D. Dhanoa, D. Beaumont, and G.L.B. Wiesenberger
 Long term drainage alters plant biodiversity and soil C- and N-storage
- 14:00–14:15 EGU2012-9482
A. Miltner, R. Kindler, J. Achtenhagen, K. Nowak, C. Girardi, and M. Kästner
 Stabilization of microbial biomass in soils: Implications for SOM formation and xenobiotics degradation
- 14:15–14:30 EGU2012-5586
L. Tranvik, C. Gudas, B. Koehler, and D. Kothawala
 Inland water transformation and stabilization of terrestrial organic carbon during transport from soil to sea
- 14:30–14:45 EGU2012-5819
B. Jansen, J.M. Van Mourik, A. De Vreng, and K. Kalbitz
 Carbon cycling in polycyclic driftsand sequences
- 14:45–15:00 EGU2012-10263
J. Niggemann, G. Gerdt, and T. Dittmar
 Molecular-level dynamics of refractory dissolved organic matter

SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Posters

Convener: S. Abiven | Co-Conveners: T. Dittmar, M. W. I. Schmidt

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY565 EGU2012-20
P. Rovira, L. Lopez-Sangil, and V.R. Vallejo
 Organic matter stabilization in mediterranean forest soils: interaction with fine mineral matter
- XY566 EGU2012-180
F. Sakellariadou
 Studies of the DOM aqueous extracts from coastal marine sediments
- XY567 EGU2012-475
Y. H. Xiao, T. Sara-aho, and A. V. Vähätalo
 Contribution of ferric iron to the absorption by chromophoric dissolved matter
- XY568 EGU2012-2202
M. Moriizumi and T. Mutsunaga
 Temporal change in molecular weight distribution of hot-water extractable organic nitrogen from cattle manure compost buried in soil using high-performance size exclusion chromatography with chemiluminescent nitrogen detection
- XY569 EGU2012-4805
Z. Y. Zhu, J. Zhang, Y. Wu, and L. Shao
 Particulate organic matter in the northwest East China Sea: Implications from amino acids enantiomers
- XY570 EGU2012-5961
T. Dittmar, B. Blasius, C. Steinbrink, C. Feenders, M. Stumm, J. Christoffers, J. Niggemann, G. Gerdt, H. Osterholz, M. Seibt, M. Seidel, and A. Vähätalo
 Universal molecular features of refractory dissolved organic matter in fresh- and seawater

- XY571 EGU2012-6407
P. Barré, L. Cécillon, A.F. Plante, C. Chenu, B.T. Christensen, J.M. Fernandez, C.M. Gherardi, S. Houot, T. Kätterer, F. van Oort, C. Peltre, and P.R. Poulton
 Evolution of soil organic matter energetic and chemical composition during long-term bare fallow: implications for soil carbon vulnerability to global change
- XY572 EGU2012-6932
O. Vishnyakova, G. Chimitdorzhieva, and D. Andreeva
 Composition of Humic Acids of the Lake Baikal Sediments
- XY573 EGU2012-8718
T. Tesi, M.A. Goñi, L. Langone, R.A. Wheatcroft, S. Miserocchi, and L. Bertotti
 Early diagenesis of recently deposited organic matter: a 9-yr time-series study of a flood deposit
- XY574 EGU2012-10275
M.-A. Courty
 Nature and origin of the resistant carbonaceous polymorphs involved the fossilization of biogenic soil-aggregates
- XY575 EGU2012-10727
H. Abdelrahman, D. Olk, C. Cocozza, and T. Miano
 Fractionation and characterization of soil organic carbon during transition to organic farming
- XY576 EGU2012-12016
H. Throckmorton, J. Bird, L. Dane, M. Firestone, and W. Horwath
 Stabilization of diverse microbial residues in California and Puerto Rico Forest Soils
- XY577 EGU2012-12076
G. de Dato, A. Lagomarsino, R. Abou Jaoudé, and P. De Angelis
 Soil carbon sequestration and mineralization potential in an old-field revegetated with shrubs in semi-arid climate conditions
- XY578 EGU2012-12595
N. Hertkorn, M. Harir, B. P. Koch, B. Michalke, P. Grill, and P. Schmitt-Kopplin
 High field NMR Spectroscopy and FTICR Mass Spectrometry: Powerful Discovery Tools for the Characterization of Marine Dissolved Organic Matter
- XY579 EGU2012-13281
H. Chmiel, J. Kokic, J. Niggemann, T. Dittmar, and S. Sobek
 Organic carbon accumulation and reactivity in central Swedish lakes during the Holocene
- XY580 EGU2012-13951
S. Abiven, J. Fuchser, M.W.I. Schmidt, and T. Dittmar
 Molecular characterisation of soil organic matter by laser-desorption ionization Fourier-transform ion cyclotron resonance mass spectrometry (LDI-FT-ICR-MS)
- XY581 EGU2012-14072
 M. Seidel, T. Riedel, H. Waska, I G. N. A. Suryaputra, M. Beck, and **T. Dittmar**
 Sinks and sources of dissolved organic matter in permeable sediments of the coastal North Sea
- XY582 EGU2012-14159
M.S. Studer, S. Abiven, M.W.I. Schmidt, and R.T.W. Siegwolf
 How to trace organic matter input by living plants into and within the soil?

BG4.1 – How interactions of recalcitrant and labile organic matter may drive carbon and nutrients balance in terrestrial and aquatic ecosystems – Posters

Convener: B. Guenet | Co-Conveners: T. J. Battin, M. Reichstein

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG64 EGU2012-7833
E. Blagodatskaya, N. Khomyakov, O. Myachina, S. Blagodatsky, and Y. Kuzyakov
 Three-source-partitioning of soil carbon pools and fluxes and priming effects induced by carbohydrates of different availability
- BG65 EGU2012-10236
K. Wagner, A. Sieczko, M.M. Bengtsson, N. Burns, E. Herberg, and T. Battin
 Extracellular enzyme activity assays (EEA) as a tool to investigate priming in freshwater biofilms
- BG66 EGU2012-12330
A. Bastianoni, J.V. Montoya, C. Mendez, and J. Paolini
 Dissolved organic carbon biodegradability from leaf litter leachates of riparian tropical trees
- BG67 EGU2012-12713
M. M. Bengtsson, K. Wagner, E. R. Herberg, N. R. Burns, W. Wanek, and T. J. Battin
 Interactions between recalcitrant and labile organic carbon in streams - Can stream biofilms mediate a priming effect?

- BG68 EGU2012-12750
N R Burns, J A Rosentreter, M M Bengtsson, K Wagner, E R Herberg, and T J Battin
 DOM transformations in stream biofilms shown by fluorescence spectroscopy
- BG69 EGU2012-13116
J.V. Montoya, A. Bastianoni, C. Mendez, and J. Paolini
 Evaluation of leaf litter leaching kinetics through commonly-used mathematical models

BG4.2 – Glacial retreat: implications for microbial ecology and biogeochemistry – Posters

Convener: T. J. Battin | Co-Conveners: A. Anesio, B. Sattler

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG70 EGU2012-9240
M. Meola, A. Lazzaro, and J. Zeyer
 Microbial diversity and biogeochemistry in glacier forefields: assessment of ecological stability in high alpine environments
- BG71 EGU2012-4858
L. Wilhelm, K. Besemer, G. Singer, and T. J. Battin
 Microbial biodiversity of the vanishing cryosphere in the Alps
- BG72 EGU2012-5156
C. Fasching, G. Singer, P. Steier, J. Niggemann, T. Dittmar, and T.J. Battin
 Ancient soil organic carbon in glaciers supports downstream metabolism in the European Alps
- BG73 EGU2012-7479
A.M. Anesio, J. Telling, M. Tranter, A. Hodson, J. Cook, M. Stibal, M. Yallop, G. Barker, C. Bellas, and J. Wadham
 Carbon and Nitrogen fixation at the surface of Glaciers and Ice Sheets
- BG74 EGU2012-11978
B. Frey
 Microbial diversity and activity along the forefield of a receding glacier
- BG75 EGU2012-13075
E. Hood, D. Scott, A. Vermilyea, A. Stubbins, P. Raymond, and R. Spencer
 Biogeochemistry of glacial runoff along the Gulf of Alaska
- BG76 EGU2012-13353
B. Sattler, M. Tilg, M. Storrie-Lombardi, D. Remias, and R. Psenner
 Laser Induced Fluorescence Emission (L.I.F.E.): In Situ Non-Destructive Detection of Microbial Life on Supraglacial Environments
- BG77 EGU2012-13852
M. Laghdass, J. Deloffre, R. Lafite, C. Hänni, B. Gillet, S. Cecillon, P. Simonet, and F. Petit
 Shift in prokaryotic diversity in Arctic sediment along a continuum Glacier -River - Fjord using massive 16S rRNA gene tag sequencing

BG4.3 – Integrating aquatic and terrestrial habitats for large-scale carbon and greenhouse gas balances - towards whole landscape assessments – Orals

Convener: D. Bastviken | Co-Conveners: T. J. Battin, L. Tranvik, S. Sobek

Room: 23

Chairperson: David Bastviken

- 08:30–08:45 EGU2012-1081
Y.T. Prairie and P.A. del Giorgio
 Landscape determinants of the carbon sink-source balance in boreal watersheds
- 08:45–09:00 EGU2012-12908
G. Vilain, J. Garnier, P. Passy, M. Silvestre, and G. Billen
 Upscaling N₂O emissions at the watershed scale: role of land cover and topography
- 09:00–09:15 EGU2012-5119
B. Koehler, T. Landelius, and L. J. Tranvik
 Photoproduction of dissolved inorganic carbon in Swedish lakes
- 09:15–09:30 EGU2012-4677
 B. Panneer Selvam, **S. Natchimuthu**, L. Arunachalam, and D. Bastviken
 Freshwater greenhouse gas emissions and their implications on landscape level carbon balances in India
- 09:30–09:45 EGU2012-11440
H.O. Sawakuchi, M.F.F.L Rasera, A.V. Krusche, and M.V.R. Ballester
 Methane Emission from Tropical Rivers

09:45–10:00 EGU2012-3666

A. Maeck, S. Flury, T. DelSontro, M. Schmidt, D. F. McGinnis, H. Fischer, P. Fietzek, and A. Lorke
Identifying hot-spot methane emission sites in an impounded river

BG4.3 – Integrating aquatic and terrestrial habitats for large-scale carbon and greenhouse gas balances - towards whole landscape assessments – Posters

Convener: D. Bastviken | Co-Conveners: T. J. Battin, L. Tranvik, S. Sobek

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: David Bastviken

BG78 EGU2012-14284

R Peixoto, **A Enrich Prast**, E C Silva, L Pontual, H Marotta, L Pinho, and D Bastviken
Spatial and temporal CH₄ flux variability in a shallow tropical floodplain lake, Pantanal, South America

BG79 EGU2012-7454

L. Klemedtsson and the L. Klemedtsson Team
The Skogaryd Research Site - Integration of terrestrial and freshwater greenhouse gas sources and sinks

BG80 EGU2012-4897

A. Kellerman, T. Dittmar, D.N. Kothawala, and L.J. Tranvik
Factors controlling composition of lake DOM across Sweden using ultrahigh-resolution mass spectrometry combined with fluorescence.

BG81 EGU2012-6014

S. Sollberger, W. Eugster, C. Schubert, and B. Wehrli
Seasonal changes in CH₄ emissions from an alpine reservoir, Lake Klöntal, Switzerland

BG82 EGU2012-12116

S. Sobek, T. DelSontro, N. Wongfun, W. Eugster, and B. Wehrli
Intense methane emission by a temperate reservoir driven by high sediment deposition: implications for localizing ebullition hot spots

BG83 EGU2012-5448

E. Podgrajsek, E. Sahlée, A. Rutgersson, and D. Bastviken
Determining methane fluxes from a Swedish lake (Tämnaren).

BG84 EGU2012-7485

A. V. Borges, G. Abril, C. Morana, S. Bouillon, and F. Darchambeau
Variability of methane in the epilimnion of Lake Kivu

BG85 EGU2012-9796

C. Deshmukh, F. Guérin, D. Serça, S. Descoux, V. Chanudet, and P. Guédant
GHG budget in a young subtropical hydroelectric reservoir: Nam Theun 2 case study

BG86 EGU2012-10539

T. DelSontro, S. Sollberger, J.P. Corella, B. Wehrli, S. Girardclos, F.S. Anselmetti, and D. B. Senn
Methane ebullition and fate in the Rhone River delta (Lake Geneva) and its subaquatic canyons

BG87 EGU2012-7521

F. Darchambeau, S. Bouillon, and **A. V. Borges**
First assessment of the biogeochemistry of the upper Congo River

BG88 EGU2012-9241

S Hengsberger, **GA Singer**, E Enrico, A Rinaldo, and TJ Battin
Stream-network scale patterns of CO₂ evasion

BG89 EGU2012-262

Z. Liu
Significance of terrestrial aquatic photosynthesis in the global carbon cycle

BG90 EGU2012-4660

A. Matouš, K. Šimek, and I. Bussmann
Activity of methane oxidizing bacteria along the River Elbe downstream to its estuary

BG91 EGU2012-7837

T. DelSontro, I. Ostrovsky, W. Eugster, D.F. McGinnis, and B. Wehrli
Examination of methane ebullition in a Swiss hydropower reservoir

BG92 EGU2012-12918

M. Wallin, S. Löfgren, and K. Bishop
CO₂ and CH₄ supersaturation of headwater streams across forested Sweden

BG93 EGU2012-13828

C. Gudas, J. Ask, L. J. Tranvik, and J. Karlsson
Mineralization of allochthonous organic carbon in lake sediments, from lake to landscape scale

BG5.1 – Urbanisation process, its dynamics and complex interactions of urban land with the Biosphere: cycles of matter, energy and water. – Posters

Convener: A. Svirejeva-Hopkins

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A. Svirejeva-Hopkins

- BG94 EGU2012-1193
R. Hermosilla
 New Information on the Guatemala City Sinkholes from Post Collapse Investigations
- BG95 EGU2012-7679
S. Marras, R.D. Pyles, M. Falk, R.L. Snyder, K.T. Paw U, I. Blecic, G.A. Trunfio, A. Cecchini, and D. Spano
 Application of the ACASA model for urban development studies
- BG96 EGU2012-8025
E. Hernandez
 Spatial layout of forecasted extreme temperatures in the city of Murcia (Spain)
- BG97 EGU2012-11857
M.A. La-Scalea, A. Fornaro, E.L. Abreu, and C.A. Mendonça
 Ionic composition and greenhouse gases evaluation in Tietê River sediment and mud landfill

SSS6.2 – Eco-engineering mitigations against natural hazards: Biological and Geophysical contributions to sustainable soil bioengineering in a changing world (co-listed) – Orals

Convener: H. P. Rauch | Co-Conveners: F. Rey, F. Preti, F. Graf, F. Ozcep

Room: 3

Chairperson: F. Graf, F. Ozcep

- 15:30–15:45 EGU2012-14122
H.B. Msita, D.N. Kimaro, P.W. Mtakwa, B.M. Msanya, S. Dondyene, J. Poesen, and J. Deckers
 Effectiveness Of Miraba an Indigenous Soil and Water Conservation Measures On Reducing Runoff And Soil Loss In Arable Land Of Western Usambara Mountains
- 15:45–16:00 EGU2012-8324
 D Ilangovan and **L Fernandes**
 Simple and Effective Undisturbed Core sampling in Mudflats
- 16:00–16:15 EGU2012-1864
A. Erktan, B. Pianu, P. Lucisine, and F. Rey
 Role of the morphology of Salix tillers barriers in marly sediment trapping efficiency in gully floor under ecological restoration: a flume experiment
- 16:15–16:30 EGU2012-1422
J. Eisenmann
 Wave basin model tests of technical-biological bank protection
- 16:30–16:45 EGU2012-14175
M. Schwarz
 Influence of root and root channels distributions on the lateral subsurface flow of homogeneous soils
- 16:45–17:00 EGU2012-11888
W. Lammeranner
 Root Development of Salix purpurea L. on Heavily Compacted Levee Soils

SSS6.2 – Eco-engineering mitigations against natural hazards: Biological and Geophysical contributions to sustainable soil bioengineering in a changing world (co-listed) – Posters

Convener: H. P. Rauch | Co-Conveners: F. Rey, F. Preti, F. Graf, F. Ozcep

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: F. Preti, Freddy Rey

- XY596 EGU2012-10799
M. von der Thannen, C. Weissteiner, H.P. Rauch, N. Tilch, and B. Kohl
 The Influence of vegetation on processes of shallow soil erosion in subalpine catchment areas in Western Austria
- XY597 EGU2012-1062
F. Ozcep, S. Karabulut, and T. Ozcep
 On comparisons between Shear Wave Velocities and Soil-Water Content
- XY598 EGU2012-1067
S. Karabulut, N. ?mre, S. Dalgic, and F. Ozcep
 Geotechnical Investigation of Landslides in Gulpinar Region

- XY599 EGU2012-4394
Ch. Rickli, S. Burger, H. Herranhof, T. Michel, A. Moser, and A. Tröger
 A new inclinable shear apparatus for large sample testing: design and perspectives
- XY600 EGU2012-4456
F. Graf and Ch. Gromke
 Wind erosion in the alpine zone - a case study at Latschuelurgga (Davos, Switzerland)
- XY601 EGU2012-4902
H.-H. Hsu
 A Preliminary Design of a Calibration Chamber for Evaluating the Stability of Unsaturated Soil Slope
- XY602 EGU2012-6581
 P. Borja, **V. Vanacker**, D. Alvarado, and G. Govers
 Restoration of badlands through applying bio-engineering techniques in active gully systems: Evidence from the Ecuadorian Andes
- XY603 EGU2012-6684
K.-L. Wang, C.-C. Ho, J.-Y. Lin, and H.-S. Tsao
 Sediment Transport and Control of Keelung River - From Watershed Management Aspect
- XY604 EGU2012-6917
F. Ali, N. Osman, R. Hashim, and A. Khalilnejad
 Numerical and Experimental Investigation on Root Anchorage
- XY605 EGU2012-7879
G. Holzapfel, P. Weihs, L. Stockreiter, and E. Hoffmann
 Determination of the Annual Shading Potential of Salix Purpurea Coppice using Hemispherical Photographs
- XY606 EGU2012-9616
M. Obriejetan, F. Florineth, and H.P. Rauch
 Erosion Control and Recultivation Measures at a Headrace Channel of a Hydroelectric Power Plant using Different Combined Soil Bioengineering Techniques
- XY607 EGU2012-10739
S. Tron, A. Dani, F. Laio, F. Preti, and L. Ridolfi
 Root profile modeling as a link between ecohydrology and slope stability
- XY608 EGU2012-11431
R. Matu? a
 Hydro-geophysics in highway monitoring - new approach to jointing multimodal MASW and refraction surveying.

Tuesday, 24 April

BG1.2/IG13 – Application of stable isotopes in Biogeosciences (co-organized) – Orals

Convener: M. E. Böttcher | Co-Conveners: S. Bouillon, G. Gleixner, A. Benthien, E. Schefuß, M. Werner, T. Prohaska, A. Zitek, J. Irrgeher, C.-F. You, T. Walczyk, LY Yang

Room: 23

Chairperson: Albert Benthien

- 08:30–08:45 EGU2012-6364
K. Yoshimura
Isotope Reanalysis for 20th century: Reproduction of isotopic time series in corals, tree-rings, and tropical ice cores
- 08:45–09:00 EGU2012-2082
M. Cuntz, V. Haverd, D. W. Griffith, C. Keitel, C. Tadros, and J. Twinning
Determine Forest Turbulent Transport and Evapotranspiration Partition With the Help of a new Soil Water Isotope Model
- 09:00–09:15 EGU2012-9624
N. Pedentchouk, T. Lawson, Y. Eley, and L. McAusland
Hydrogen isotope composition of leaf wax n-alkanes in Arabidopsis lines with different transpiration rates
- 09:15–09:30 EGU2012-9321
I. Vasiliev, G. J. Reichart, L. van Roij, F. Sangiorgi, and W. Krijgsman
Drying up of the Black Sea during the Messinian Salinity Crisis of the Mediterranean
- 09:30–09:45 EGU2012-10635
M. Tuthorn, M. Zech, F. Detsch, D. Juchelka, K. Kalbitz, C. Mayr, R. Werner, R. Zech, W. Zech, and B. Glaser
A 240 ka terrestrial 18O record from a NE-Siberian loess-like permafrost paleosol-sequence based on a novel analytical 18O method
- 09:45–10:00 EGU2012-2145
M. S. Studer, S. Abiven, M. W. I. Schmidt, and R. T. W. Siegwolf
Multi-isotope labelling (13C, 18O, 2H) for studying organic matter cycling within plant-soil systems

COFFEE BREAK

Chairperson: Michael E. Böttcher

- 10:30–10:45 EGU2012-10086
C. Vogel, K. Heister, F. Buegger, A. Bannert, and I. Kögel-Knabner
Investigation of biogeochemical interface development by a short-term incubation experiment using 15N and 13C labeled litter
- 10:45–11:00 EGU2012-2513
F. Dehairs
Seasonal evolution of nitrate isotopic composition in the River Scheldt
- 11:00–11:15 EGU2012-8559
K Dähnke and B. Thamdrup
Sedimentary denitrification: Isotope fractionation and its impact on water column nitrate isotopes
- 11:15–11:30 EGU2012-10918
A. Mothet, M. Sebilo, A.M. Laverman, V. Vaury, and A. Mariotti
Using natural isotopic abundances to determine the source of nitrous oxide (N2O) emissions
- 11:30–11:45 EGU2012-7670
I. Preuss, C. Knoblauch, J. Gebert, and E.-M. Pfeiffer
Using carbon isotope fractionation for an improved quantification of CH4 oxidation efficiency in Arctic peatlands
- 11:45–12:00 EGU2012-12795
M. Dippold, C. Apostel, B. Glaser, and Y. Kuzyakov
Microbial utilization of amino acids in soil assessed by position-specific labeling and compound-specific 13C-PLFA-analysis

LUNCH BREAK

Chairperson: Thomas Prohaska

- 13:30–13:45 EGU2012-287
K.M. MacKenzie, C.N. Trueman, and M.R. Palmer
 Ecology and location of marine animals revealed by carbon and nitrogen isotopes
- 13:45–14:00 EGU2012-2965
J.I. Garcia Alonso
 Multiple linear regression for isotopic measurements
- 14:00–14:15 EGU2012-1495
L. Yang, Z. Mester, R.E. Sturgeon, and J. Meija
 Observation of Mass-Independent Fractionation in MC-ICPMS and its Implication for Accurate Isotope Ratio Measurements
- 14:15–14:30 EGU2012-6151
N. Kowalski, O. Dellwig, N. Neubert, U. Gräwe, M. Beck, T. F. Nögler, H.-J. Brumsack, J. E. E. van Beusekom, and M. E. Böttcher
 Pelagic anomalies and isotope signatures of molybdenum in temperate tidal systems
- 14:30–14:45 EGU2012-10714
L. Van Heghe, C. Cloquet, and F. Vanhaecke
 Normal variations in the isotopic composition of metabolically relevant transition metals in human blood
- 14:45–15:00 EGU2012-12549
J. Radke, M. Deerberg, A. Hilbert, H.-J. Schlüter, and J. Schwieters
 High Resolution Double-Focusing Isotope Ratio Mass Spectrometry

BG1.2/IG13 – Application of stable isotopes in Biogeosciences (co-organized) – Posters

Convener: M. E. Böttcher | Co-Conveners: S. Bouillon, G. Gleixner, A. Benthien, E. Schefuß, M. Werner, T. Prohaska, A. Zitek, J. Irrgeher, C.-F. You, T. Walczyk, LY Yang

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG1 EGU2012-8220
A. Okazaki, K. Yoshimura, N. Takeuchi, K. Fujita, V. Aizen, and T. Oki
 Simulation of vertical profiles of stable water isotopes in a snow pit using a new offline isotopic snow-icecore model
- BG2 EGU2012-5311
S. Pfahl, H. Wernli, and K. Yoshimura
 The isotopic composition of precipitation from a winter storm - a case study with the limited-area model COSMOiso
- BG3 EGU2012-10952
F. Aemisegger, S. Pfahl, H. Sodemann, I. Lehner, and H. Wernli
 Lagrangian investigation of high-frequency variations in stable isotope composition of atmospheric boundary layer water vapour
- BG4 EGU2012-3747
B. Haese, M. Werner, and G. Lohmann
 Stable Water Isotopes in a Coupled Atmosphere-Vegetation Model: Sensitivity Studies for Present Day Conditions
- BG5 EGU2012-12493
K. Soderberg, S.P. Good, M. O'Connor, E.G. King, and K.K. Caylor
 Evapotranspiration partitioning in a semi-arid African savanna using stable isotopes of water vapor
- BG6 EGU2012-6565
G. Hsiao, J. Hoffnagle, V. Gkinis, E.J. Steig, B. Vaughn, S. Schoenemann, and A. Schauer
 $\delta^{17}\text{O}$ -Excess Measurements of Water Without Fluorination Using Optical Spectroscopy
- BG7 EGU2012-13321
 T. Owano, **M. Gupta**, E. Berman, and D. Baer
 New Isotopic Water Analyzer for Hydrological Measurements of Both Liquid Water and Water Vapor
- BG8 EGU2012-6836
G. Gonzalez, R. Tappert, A.P. Wolfe, and K. Muehlenbachs
 Deuterium isotopic exchangeability of resin and amber at low thermal stress under hydrous conditions
- BG9 EGU2012-11868
A. Hammerle, L. Gentsch, M. Barthel, R. Siegwolf, P. Sturm, and A. Knohl
 Leaf oxygen isotope exchange in water vapor and carbon dioxide of *Fagus sylvatica* under field conditions
- BG10 EGU2012-10925
M. Zech, G. Gleixner, R. Zech, A. Hemp, and W. Zech
 Do n-alkane biomarkers in soils reflect the D/H isotopic composition of precipitation? A case study from Mt. Kilimanjaro and implications for paleoclimate and paleoaltimetry research

- BG11 EGU2012-5348
M. Brown, A. Knohl, H. Kreilein, D. Zanotelli, A. Rauf, and H. Barus
 High-frequency measurements of atmospheric stable water vapor isotopes in the tropics (Sulawesi, Indonesia)
- BG12 EGU2012-9631
E.M. Mezger, I. Vasiliev, S. Lugli, M. Roveri, V. Manzi, and G.J. Reichart
 How dry was the Messinian Salinity Crisis? - a molecular study of the Eraclea Minoa (Sicily) section, Italy
- BG13 EGU2012-7952
E. Koskeridou and K. Agiadi
 Paleoenvironmental and sclerochronological reconstruction of *Crassostrea gryphoides* Miocene biostromes from Crete island (Greece)
- BG14 EGU2012-8883
H.E. Cockerton, F. A. Street-Perrott, M. J. Leng, P. A. Barker, K. J. Ficken, M. S. A. Horstwood, V. Pashley, and H. J. Sloane
 Holocene variations in the Si cycle in the Nile River Basin: stable-isotope evidence from natural waters and lacustrine diatoms
- BG15 EGU2012-3311
H. Stoll, C. Bolton, K. Isensee, A. Mendez-Vicente, M. Rubio-Ramos, and L.M. Mejia-Ramirez
 Can stable isotope fractionation in diatom and coccolith biominerals elucidate the significance of carbon concentrating mechanisms (CCMs) in the past?
- BG16 EGU2012-6123
N. Kowalski, O. Dellwig, P. Escher, A. Stark, and M.E. Böttcher
 Early diagenesis in sediments of the subtropical Beibu Gulf, South China Sea: Constraints from trace elements, and stable S and C isotopes
- BG17 EGU2012-6558
M. E. Böttcher, J. Köster, J. Rullkötter, H. Freund, A.M. Al-Raei, N. Kowalski, P. Escher, and R. Bahlo
 Sulfur-carbon cycling in a temperate tidal system from Pleistocene to modern time: Evidence from sedimentary sulfur and carbon isotopes, and pyrite textures
- BG18 EGU2012-2452
M. E. Böttcher, A. Kamysny, O. Dellwig, and J. Farquhar
 Multi-isotope biogeochemistry of sulfur in the water column and surface sediments of the Baltic Sea
- BG19 EGU2012-2327
P. Pjevac, B. Brunner, and M. Mußmann
 Oxygen isotope composition of sulfate produced during microbial sulfur oxidation: A pathway-specific fingerprint?
- BG20 EGU2012-13658
 K. Müller, V. Winde, P. Escher, R. von Geldern, and **M.E. Böttcher**
 Experimental fractionation of stable carbon isotopes during degassing of carbon dioxide and precipitation of calcite from aqueous solutions
- BG21 EGU2012-7428
C.-F. You, P.-Y. Lin, K.-F. Huang, and C.-H. Chung
 Ocean Acidification in the Western Pacific: Boron Isotopic Records in Coral Skeleton
- BG22 EGU2012-8936
K Dähnke, A. Moneta, B Veuger, K Soetaert, and JJ Middelburg
 Nitrogen assimilation and dissimilation by bacteria and benthic microalgae in tidal mudflat sediment in a ¹⁵N labeling study
- BG23 EGU2012-5317
S.-Y. Hsiao, T.-C. Hsu, H. Lin, J.-W. Liu, J. Lin, H.-J. Wang, M. Dai, and S.-J. Kao
 Particulate associated nitrification and N₂O production along Changjiang plume
- BG24 EGU2012-3568
S. Blagodatsky, F. Albanito, D. Robinson, and P. Smith
 Quantification of soil, root and litter respiration using natural variation in ¹³C composition of CO₂ fluxes and modelling
- BG25 EGU2012-8748
S. Kappel and T. Prohaska
 Data Evaluation Strategies for U Isotope Ratio Measurements of Single Particles by Laser Ablation - Multi Collector - Inductively Coupled Plasma Mass Spectrometry
- BG26 EGU2012-6960
H.-C. Liu, C.-F. You, and Y.-J. Tu
 Stable Strontium Isotopic Fractionation During Sorption onto Magnetic Nano-Humid Acid Coated Iron Oxide Particles
- BG27 EGU2012-5923
J. Irrgeher, P. Galler, A. Zitek, M. Teschler-Nicola, and T. Prohaska
⁸⁷Sr/⁸⁶Sr Isotope Ratio Measurements of Calcium-rich matrices by (Laser Ablation)-Multiple Collector Inductively Coupled Plasma Mass Spectrometry: A Survey on Mass Discrimination and Matrix-Induced Interferences

- BG28 EGU2012-10694
A. Zitek, J. Irrgeher, K. Sailer, C. Trautwein, H. Waidbacher, and T. Prohaska
 The applicability of an $^{87}\text{Sr}/^{86}\text{Sr}$ river isoscape to fish ecological questions in the Danube catchment
- BG29 EGU2012-12346
M. Mercurio, E. Grilli, V. Morra, T. Prohaska, A. Buondonno, and A. Langella
 The geofingerprint of Pyroclastic Rocks/Typic Herorthents/Piedirosso chain surveyed in the Roccamonfina terroir, northwest Campania region, Italy
- BG30 EGU2012-12875
S. Rihs, M-C. Pierret, and F. Chabaux
 Using radium isotopes as tracers of transfers in the soil - water- -plant system
- BG31 EGU2012-12399
F. Gelman, A. Bernstein, E. Levin, Z. Ronen, and L. Halicz
 Bromine isotope analysis - a tool for investigating biogeochemical cycle of bromine-containing organic and inorganic compounds in the environment
- BG32 EGU2012-2963
J-C. Dutay, P. Peylin, and P. Jean-Baptiste
 Constraint on oceanic hydrothermal ^3He flux from inverse modeling

BG1.4 – Earth Observation for Land-Atmosphere Interaction Science – Orals

Convener: M. Marconcini | Co-Conveners: Dr. Fernández Prieto, A. Reissell, G. Hayman, J.-P. Muller, Dr. de Leeuw

Room: 24

Chairperson: n.n.

- 15:30–15:45 EGU2012-4494
D. Fisher, J.-P. Muller, and V. Yershov
 The validation and analysis of novel stereo-derived smoke plume products from AATSR and their application to fire events from the 2008 Russian fire season
- 15:45–16:00 EGU2012-11748
T. Kaminski, W. Knorr, M. Scholze, N. Gobron, B. Pinty, R. Giering, and P.P. Mathieu
 Simultaneous Assimilation of FAPAR and Atmospheric CO_2 into a Terrestrial Vegetation Model
- 16:00–16:15 EGU2012-7666
E. Comyn-Platt, J.J. Remedios, E.J. Good, D. Ghent, and R. Saunders
 Land Surface Temperature- Comparing Data from Polar Orbiting and Geostationary Satellites
- 16:15–16:30 EGU2012-10525
E. Kantzas, M. Lomas, and S. Quegan
 Fire disturbance and land cover at high latitudes and the Arctic: model-data comparison and model modification
- 16:30–16:45 EGU2012-5755
G. Hayman, D. Clark, E. Blyth, A. Bartsch, C. Paulik, S. Schlaffer, J. Reschke, C. Prigent, F. Aires, M. Buchwitz, O. Schneising, J. Burrows, F. O'Connor, and N. Gedney
 Using novel Earth observation products to characterise wetland extend and methand dynamics in the Jules Land surface model: the ESA ALANIS-Methane Project
- 16:45–17:00 EGU2012-9990
O. Sus and M. Williams
 A data assimilation framework for constraining upscaled cropland carbon flux seasonality with MODIS

BG1.4 – Earth Observation for Land-Atmosphere Interaction Science – Posters

Convener: M. Marconcini | Co-Conveners: Dr. Fernández Prieto, A. Reissell, G. Hayman, J.-P. Muller, Dr. de Leeuw

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG33 EGU2012-14148
K Murphy, F. Clement, and G. Kiely
 Combining MODIS data and tower based measurements to estimate net ecosystem carbon exchange for the Republic of Ireland
- BG34 EGU2012-1736
H. Wang and G. Jia
 Up-scaling gross primary production from site to region with flux measurements and satellite data in northern China
- BG35 EGU2012-1802
M. L. Sánchez, N. Pardo, I. Pérez, M.A. García, and V. Paredes
 GPP estimates in a biodiesel crop using MERIS products

- BG36 EGU2012-3017
M. Forkel, N. Carvalhais, M. Reichstein, and K. Thonicke
Recent trends of high-latitude vegetation activity assessed and explained by contrasting modelling approaches with earth observation data
- BG37 EGU2012-4855
T. Manninen and N. Puttonen
The effect of land cover heterogeneity of MODIS pixel on canopy LAI estimation
- BG38 EGU2012-5389
G. de Leeuw, L. Sogacheva, N. Kivekas, H. Lappalainen, A. Arola, T. Mielonen, V.-M. Kerminen, M. Sofiev, H. Korhonen, A. Arneth, M. Kulmala, and S. Pinnock
Discrimination of aerosol sources over the eurasian boreal forest using satellite observations
- BG39 EGU2012-5413
A. Brut, V. Rivalland, B. Coudert, P.A. Solignac, J. Cote, P. Keravec, O. Merlin, and E. Ceschia
Aggregation of energy and water surface fluxes at the agricultural landscape scale by combining scintillometer measurements, remote sensing data and SVAT modelling.
- BG40 EGU2012-6685
S.M.C Coura, G. Pereira, F. S Cardozo, Y. E Shimabukuro, A. Lima, F. J Ponzoni, and L.O Anderson
Greenhouse gases emissions due to biomass burning and deforestation in Acre State- Brazilian Amazonia
- BG41 EGU2012-7133
F. Gao, S. Stanic, K. Bergant, and **T.-Y. He**
Correlation Study of Water Vapor and Aerosol Distributions in Troposphere Using Scanning Raman Lidar
- BG42 EGU2012-7455
N. Ghilain, F. De Roo, A. Arboleda, and F. Gellens-Meulenberghs
LSA-SAF evapotranspiration products based on MSG/SEVIRI: improvement opportunities from moderate spatial resolution satellites sensors for vegetation (SPOT-VGT, MODIS, PROBA-V)
- BG43 EGU2012-10087
N. Kuusinen, F. Berninger, P. Kolari, J. Levula, and A. Porcar-Castell
Influence of snow on evergreen coniferous forest albedo
- BG44 EGU2012-4991
O. Schneising, M. Buchwitz, J. Heymann, M. Reuter, H. Bovensmann, and J. P. Burrows
Improved carbon dioxide and methane retrieved from SCIAMACHY onboard ENVISAT: Validation and land-atmosphere related applications
- BG45 EGU2012-672
L.K. Yang, Y. Xue, Y.J. Li, and C. Li
A simulated comparison of Top of the Atmosphere (TOA) reflectance by choosing different ground-atmosphere interacting models in satellite aerosol optical depth retrieval
- BG46 EGU2012-4808
J. Guang, **Y. Xue**, L. Yang, Y. Li, and L. Mei
Albedo mapping from remote sensing data
- BG47 EGU2012-8403
E. Good
Land surface air temperature monitoring using a combination of satellite and in situ measurements
- BG48 EGU2012-4263
A. T. Vermeulen, A. Hensen, and A. Bleeker
InGOS - a FP7 Infrastructure project for non-CO2 greenhouse gas Observations
- BG49 EGU2012-3647
B. Pinty, M. Jung, T. Kaminski, T. Laverigne, M. Mund, S. Plummer, E. Thomas, and J.-L. Widlowski
Evaluation of the Two-stream Inversion Package (JRC-TIP) over the Hainich Forest FLUXNET site
- BG50 EGU2012-13412
N. Oppelt, H. Rathjens, and T.-L. Müller
Parameterization of a hydrological model using remote sensing data
- BG51 EGU2012-10364
S. Preuschmann and D. Jacob
LUCHS - an approach to introduce Land Use Changes in a regional climate models by using EO data
- BG52 EGU2012-11207
G. J. Schürmann, S. Zaehle, N. Carvalhais, J. Kattge, L. Luo, T. Kaminski, and C. Reick
Parametric sensitivities of the terrestrial biosphere model JSBACH: A step towards a carbon cycle data assimilation system

CL1.16/AS4.1/BG2.12/IG15 – Biogeochemistry of Atmospheric Methane: Isotopes to Models (co-organized) – Orals

Convener: T. Sowers | Co-Conveners: M. Bock, J. Singarayer

Room: 13

Chairperson: Todd Sowers

- 08:30–08:45 EGU2012-3211
L. Mitchell, E. Brook, T. Sowers, and J. Lee
 Multidecadal variability and the Inter Polar Gradient of atmospheric methane in the late Holocene
- 08:45–09:00 EGU2012-9540
J. G. Levine, E. W. Wolff, A. E. Jones, M. A. Hutterli, L. C. Sime, O. Wild, P. O. Hopcroft, P. J. Valdes, A. T. Archibald, G. D. Carver, N. J. Warwick, and J. A. Pyle
 The Ice-core Record of Atmospheric Methane: Chemistry-Climate Interactions on Tens to Thousands of Years
- 09:00–09:15 EGU2012-4938
I. Levin, G. Brailsford, T. Bromley, E. Dlugokencky, R. Fisher, R. Heinz, D. Lowe, D. Lowry, J.B. Miller, E. Nisbet, C. Poß, B.H. Vaughn, C. Veidt, and J.W.C. White
 Two decades of stable carbon isotope measurements in atmospheric methane - what do they tell us about global methane budget changes?
- 09:15–09:30 EGU2012-13042
S. Houweling
 Global sources and sinks of methane and the use of satellite measurements
- 09:30–09:45 EGU2012-2937
 L. Möller, T. Sowers, M. Bock, R. Spahni, M. Behrens, J. Schmitt, H. Miller, and **H. Fischer**
 Climate and CO₂ control on emissions and ecosystem composition of global methane sources over the last 160,000 years derived from $\delta^{13}\text{CH}_4$ in ice cores
- 09:45–10:00 EGU2012-162
J. Chappellaz, T. Blunier, X. Faïn, C. Stowasser, V. Gkinis, E. Brook, R. Rhodes, J. McConnell, S. Schüpbach, J. Rosen, R. Dallmayr, O. Pascual, and M. Bigler
 Continuous Methane and Carbon Monoxide Concentration Measurements along the NEEM Core

CL1.16/AS4.1/BG2.12/IG15 – Biogeochemistry of Atmospheric Methane: Isotopes to Models (co-organized) – Posters

Convener: T. Sowers | Co-Conveners: M. Bock, J. Singarayer

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Michael Bock

- Z31 EGU2012-5751
A. Basu, M. G. Schultz, and L. Francois
 Evaluation of a wetland methane emission parameterization for present-day and Last Glacial Maximum
- Z32 EGU2012-10947
A. Budishchev, Y. Mi, A. Gallagher, J. van Huissteden, G. Schaepman-Strub, A.J. Dolman, and T.C. Maximov
 Validation of a methane emission model using eddy covariance observations and footprint modeling.
- Z33 EGU2012-13057
S. Dadson
 Modelling land-atmosphere interactions in tropical African wetlands
- Z34 EGU2012-7135
T. Umezawa, S. Sugawara, T. Sugiyama, K. Kawamura, S. Aoki, and T. Nakazawa
 Histories of atmospheric methane and its carbon and hydrogen isotopic ratios over the last 250 years obtained from an ice core and firn air
- Z35 EGU2012-1699
S. Bryant, L. Mitchell, E. Brook, and T. Sowers
 High-resolution methane records covering the Holocene
- Z36 EGU2012-3217
 H. Mitchell, M. Bock, and **T. Sowers**
 Decoupling atmospheric methane isotope records during MIS 5-4 transition
- Z37 EGU2012-2366
M. Bock, J. Schmitt, R. Schneider, and H. Fischer
 Post pyrolysis trapping of molecular hydrogen improves precision for $\delta^2\text{D}(\text{CH}_4)$ analysis
- Z38 EGU2012-7234
 J. Schmitt, **B. Seth**, and H. Fischer
 In situ production of ethane and propane in dust-rich Greenland ice core samples: is methane also affected?
- Z39 EGU2012-14109
 M Baumgartner, A Schilt, O Eicher, J Schmitt, J Schwander, R Spahni, **H Fischer**, and T Stocker
 Interpolar difference of atmospheric methane around the last glacial maximum
- Z40 EGU2012-5578
T. Blunier, J. Chappellaz, S. Schuepbach, Ch. Stowasser, E. Brook, J. Rosen, R. Dallmayr, O. Pascual, M. Bigler, and D. Leuenberger
 Steps towards a continuous methane concentration record back to 100 kyr BP

- Z41 EGU2012-4396
C. J. Sapart, G. Monteil, M. Prokopiou, R.S.W. van de Wal, P. Sperlich, J.O. Kaplan, K.M. Krumhardt, C. van der Veen, S. Houweling, M.C. Krol, T. Blunier, T. Sowers, P. Martinerie, D. Dahl-Jensen, and T. Röckmann
 Natural and anthropogenic variations in methane sources over the last 2 millennia
- Z42 EGU2012-3868
H. Schaefer, D.F. Ferretti, K.R. Lassey, J.W.C. White, P. Sperlich, D.M. Etheridge, and D.C. Lowe
 Methane source reconstructions for the last 300 years from Law Dome $\delta^{13}\text{CH}_4$ and their relation to past climate

AS4.4/BG2.16 – Boreal forest chemistry and physics (co-organized) – Orals

Convener: J. Williams | Co-Conveners: T. Petäjä

Room: 8

Chairperson: J. Williams, T. Petäjä

- 15:30–15:45 EGU2012-6971
J. Bäck, J. Aalto, P. Kolari, P. Hari, and M. Kulmala
 Contribution of developing foliage to canopy emissions of volatile organic compounds
- 15:45–16:00 EGU2012-5191
A.C. Nölscher, J. Williams, V. Sinha, W. Song, A. Johnson, N. Yassaa, G. Phillips, J. Crowley, R. Axinte, H. Fischer, D. Gonzales, J. Valverde-Canossa, A. Vogel, T. Hoffmann, P. Rantala, J. Rinne, M. Kulmala, H. Ouwersloot, J. Vila, and J. Lelieveld
 High missing OH reactivity in summertime boreal forest environment
- 16:00–16:15 EGU2012-9051
K. Hens and the HUMPPA-COPEC2010 Team
 Hydroxyl radical measurements in a boreal forest during HUMPPA-COPEC 2010
- 16:15–16:30 EGU2012-10036
T. Nieminen, M. Dal Maso, T. Petäjä, P. P. Aalto, V.-M. Kerminen, P. Hari, and M. Kulmala
 Trends on atmospheric new particle formation — 16 years of observations in boreal forest
- 16:30–16:45 EGU2012-8736
A. L. Vogel, M. Brüggemann, M. Äijälä, M. Ehn, H. Junninen, A. L. Corrigan, T. Petäjä, D. R. Worsnop, L. M. Russell, M. Kulmala, J. Williams, and T. Hoffmann
 Online measurement of biogenic organic acids in the boreal forest using atmospheric pressure chemical ionization mass spectrometry (APCI-MS)
- 16:45–17:00 EGU2012-13285
A. Corrigan, L. Russell, M. Äijälä, T. Petäjä, M. Kulmala, W. Song, and J. Williams
 Separation of biogenic and biomass burning submicron aerosol from a boreal forest in Hyytiälä, Finland during HUMPPA-COPEC 2010

AS4.4/BG2.16 – Boreal forest chemistry and physics (co-organized) – Posters

Convener: J. Williams | Co-Conveners: T. Petäjä

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J. Bäck, N. Yassaa

- XY122 EGU2012-2267
J. Williams, T. Petäjä and the HUMPPA-COPEC Team
 The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences.
- XY123 EGU2012-4203
N. Yassaa, J. Williams, W. Song, A. Vanhatalo, J. Bäck, and J. Lelieveld
 Diel cycles of isoprenoids in the emissions of Norway spruce, different Scots pine chemotypes, and in Boreal forest ambient air during HUMPPA-COPEC-2010
- XY124 EGU2012-4014
H. Hellén, M. Henriksson, M. Kulmala, and H. Hakola
 Semi-continuous measurements of mono- and sesquiterpene concentrations in Boreal Forest
- XY125 EGU2012-9735
R. Taipale, P. Rantala, M. K. Kajos, J. Patokoski, T. M. Ruuskanen, J. Aalto, P. Kolari, J. Bäck, P. Hari, M. Kulmala, and J. Rinne
 Oxygenated VOC and monoterpene emissions from a boreal coniferous forest
- XY126 EGU2012-8852
G. J. Phillips, N. Pouvesle, J. Thieser, R. Axinte, G. Schuster, H. Fischer, J. Williams, and J. N. Crowley
 Simultaneous measurements of peroxyacetyl nitrate and peroxyacetic acid by Chemical Ionization Mass Spectrometry (CIMS): contrasting boreal forest with rural continental Europe

- XY127 EGU2012-3022
R. Axinte, H. Fischer, H. Bozem, Z. Hosaynali Beygi, A. Reiffs, U. Parchatka, and R. Koenigstedt
Variation of Tropospheric Hydrogen Peroxide and Formaldehyde From the Subtropics to the Boreal Forest in Europe
- XY128 EGU2012-9526
P. Rantala, R. Taipale, T.M. Ruuskanen, J. Aalto, M.K. Kajos, J. Patokoski, S. Schallhart, and J. Rinne
Flux measurements of volatile organic compounds at SMEAR II using surface layer gradient method
- XY129 EGU2012-3619
R. Dlugi, M. Berger, M. Zelger, A. Hofzumahaus, F. Rohrer, K. Lu, F. Holland, and G. Kramm
Segregation Effects on Chemical Reactions in Atmospheric Flows: A Comparison of Experimental and Modeling Results
- XY130 EGU2012-5322
A.C. Nölscher, V. Sinha, S. Bockisch, T. Klüpfel, and J. Williams
A new method for direct total OH reactivity measurements using a fast Gas Chromatographic Photo-Ionization Detector (GC-PID)
- XY131 EGU2012-10362
A. Virkkula, **U. Makkonen**, J. Mäntykenttä, and H. Hakola
Seasonal and diurnal cycles of ammonia, nitrous acid and nitric acid at a forest site in Finland
- XY132 EGU2012-10557
T. Jokinen, M. Sipilä, H. Junninen, M. Ehn, J. Hakala, G. Lönn, T. Petäjä, M. Kulmala, and D. R. Worsnop
Sulphuric acid and neutral cluster measurements with CI-API-TOF
- XY133 EGU2012-12425
J. Joensuu, N. Altimir, M. Raivonen, P. Kolari, P. Keronen, T. Vesala, J. Bäck, P. Hari, E. Järvinen, and E. Nikkinen
Role of plant-generated water vapor and VOC fluxes in shoot chamber measurements of O₃ and NO_x
- XY134 EGU2012-13376
A. van Eijck, C. Kampf, and T. Hoffmann
Oxygenated products of sesquiterpenes in secondary organic aerosol
- XY135 EGU2012-9991
M. Äijälä, H. Junninen, M. Ehn, T. Petäjä, A. Vogel, T. Hoffmann, A. Corrigan, L. Russell, U. Makkonen, A. Virkkula, J. Mäntykenttä, M. Kulmala, and D. Worsnop
Measurements of aerosol chemical composition in boreal forest summer conditions
- XY136 EGU2012-8465
S.A.K. Häkkinen, M. Äijälä, K. Lehtipalo, H. Junninen, A. Virkkula, D.R. Worsnop, M. Kulmala, T. Petäjä, and I. Riipinen
Aerosol volatility in a boreal forest environment
- XY137 EGU2012-10702
H.E. Manninen, **T. Nieminen**, A. Franchin, E. Järvinen, J. Kontkanen, A. Hirsikko, U. Hörrak, A. Mirme, H. Tammet, V.-M. Kerminen, T. Petäjä, and M. Kulmala
Atmospheric ions, boreal forests and impacts on climate

BG5.2 – Environmental, socio-economic and climatic changes in Northern Eurasia and their feedbacks to the Global Earth System – Orals

Convener: P. Groisman | Co-Conveners: D. Schepaschenko, D. McCabe, A. Olchev, M. Andreae

Room: 24

Chairperson: n.n.

- 08:30–08:45 EGU2012-161
G. Gutman and I. Csiszar
A NASA-NOAA Update on Global Fire Monitoring Capabilities for Studying Fire-Climate Interactions: Focus on Northern Eurasia
- 08:45–09:00 EGU2012-3713
D. W. Kicklighter, Y. Cai, Q. Zhuang, E. I. Parfenova, A. P. Sokolov, J. M. Melillo, and J. M. Reilly
Influence of Climate-induced Vegetation Shifts on Future Land Use and Associated Land Carbon Fluxes in Northern Eurasia
- 09:00–09:15 EGU2012-2066
M. O. Andreae, W. Birmili, X. Chi, M. Heimann, J. Heintzenberg, E. Mikhailov, and A. Panov
Long-Term Measurements of Carbon Monoxide and Aerosols at the ZOTTO tall tower, Siberia
- 09:15–09:30 EGU2012-4533
A. Skorokhod, R. Shumsky, N. Pankratova, K. Moiseenko, A. Vasileva, E. Berezina, and N. Elansky
Trace gases over Northern Eurasia: background level and disturbing factors
- 09:30–09:45 EGU2012-121
A. Pikaleva
Wetlands and methane emission in the XXI century: RCM-based projection for Northern Eurasia

09:45–10:00 EGU2012-6202

J. McCarty, E. Ellicott, V. Romanenkov, D. Rukhovitch, and P. Koroleva

Multi-year black carbon emissions from cropland burning in the Russian Federation utilizing satellite fire data and agricultural statistics

COFFEE BREAK

Chairperson: Meinrat Andreae

10:30–10:45 EGU2012-7967

J. Winderlich, C. Gerbig, C. Roedenbeck, K. Trusilova, A. Panov, M. Sasakawa, T. Machida, and M. HeimannCO₂ and CH₄ flux estimates in Central Siberia from a 2-step transport inversion system

10:45–11:00 EGU2012-598

T. Shulgina, E. Genina, and E. Gordov

Comparison of observed and different reanalysis climatic characteristics over Siberia

11:00–11:15 EGU2012-4927

K. Klehmet and B. Rockel

Dynamical Downscaling over Siberia: Is there an added value in representing recent climate conditions?

11:15–11:30 EGU2012-10986

O. Deshcherevskaya and A. Oltchev

Water vapor and carbon dioxide balances of European Russian southern taiga forests under projected climate change

11:30–11:45 EGU2012-747

A.V. Prishchepov, D. Müller, A. Sieber, T. Kuemmerle, V.C. Radeloff, and P. Hostert

The trajectories and determinants of agricultural land-use change over the last two decades in post-Soviet European Russia

11:45–12:00 EGU2012-391

S. Kuzmin

The influence of weather conditions and outbreak of fungal disease on radial growth of Scots pine climatotypes in the provenance trial

LUNCH BREAK

Chairperson: n.n.

13:30–13:45 EGU2012-5729

A.A. Vinogradova, Yu.A. Ivanova, and A.O. Veremeychik

The environment of nature reserves under anthropogenic load: air transport of pollution to the North of European Russia

13:45–14:00 EGU2012-12434

S. Chalov, M. Lychagin, and N. Kasimov

Human impacts on Water and Sediment Quality of Selenga River system

14:00–14:15 EGU2012-8544

D. Schepaschenko, A. Shvidenko, and M. Schepaschenko

Carbon balance of Russian agricultural land

14:15–14:30 EGU2012-6745

E. P. Gordov, M.V. Kabanov, V.N. Krupchatnikov, V.N. Lykosov, Yu.V. Martynova, and T.M. Shulgina

Interrelations of global change and Siberia regional climate

14:30–14:45 EGU2012-6807

A. Shiklomanov and A. Prusevich

Analysis of changes in water cycle across Northern Eurasia with Rapid Integrated Mapping and Analysis System (RIMS)

14:45–15:00 EGU2012-10737

M. Lomas, **E. Kantzas**, and S. Quegan

Evaluation of hydrological outputs from land surface carbon models using river discharge data and earth observations of snow for the pan-arctic region

BG5.2 – Environmental, socio-economic and climatic changes in Northern Eurasia and their feedbacks to the Global Earth System – Posters

Convener: P. Groisman | Co-Conveners: D. Schepaschenko, D. McCabe, A. Olchev, M. Andreae

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG53 EGU2012-13776
S. Saatchi, A. Nouri, S. Asefi, A. Shiklomanov, D. Entekhabi, S. Mohammadi, and B. Hedjazi
Satellite Observation of Large Scale Changes in Climate and Land Use in the Caspian Sea Basin
- BG54 EGU2012-3424
P.Y. Groisman, R.G. Lawford, and **V.M. Kattsov**
Northern Eurasia Earth Science Partnership Initiative in 2011-2012: An Update
- BG55 EGU2012-3224
P.Y. Groisman, S.K. Gulev, O.G. Zolina, X.L. Wang, O.N. Bulygina, and R.W. Knight
Changes in duration and intensity of the wet spells of different intensity over Northern Eurasia and North America
- BG56 EGU2012-12138
M. Weiß and B. van den Hurk
Land cover change impacts and vegetation-climate feedbacks with focus on Eurasia
- BG57 EGU2012-2613
O.N Bulygina, V.N Razuvaev, P.Ya Groisman, and N.N Korshunova
Snow Cover Changes over Northern Eurasia from in Situ Observations
- BG58 EGU2012-320
E.V. Kharyutkina, I.I. Ippolitov, and S.V. Loginov
Influence of circulation and radiative factors on temperature variability over different regions of the Asian territory of Russia
- BG59 EGU2012-228
E.N. Rusina and V.F. Radionov
Total solar radiation in the Arctic from 1950s to present time: observations at Russian drifting and stationary stations
- BG60 EGU2012-10991
E. Kuznetsova and D. Kozlov
Lake level dynamics of the Terekhol Lake (Upper Yenisei River Basin, Russia): reconstructions by the dendrochronological and remote sensing methods
- BG61 EGU2012-6103
M. Artamonova, G. Golitsyn, I. Senik, A. Safronov, A. Babyakin, N. Efimenko, N. Povolotskaya, D. Topuriya, and E. Chalaya
The influence of regional urbanization and abnormal weather conditions on the processes of human climatic adaptation on mountain resorts
- BG62 EGU2012-10270
A. Mahura, I. Gonzalez-Aparicio, R. Nuterman, and A. Baklanov
Modelling and Evaluation of Environmental Impact due to Continuous Emissions of the Severonickel Plant (Kola Peninsula)
- BG63 EGU2012-12366
E. Zakarin, L. Balakay, B. Mirkarimova, **A. Mahura**, A. Baklanov, and J.H. Sorensen
Transboundary Atmospheric Pollution of Oil-Gas Industry Emissions from North Caspian region of Kazakhstan
- BG64 EGU2012-9037
M. Glagolev, I. Kleptsova, and S. Maksyutov
High rates of methane emissions from south taiga wetland ponds.
- BG65 EGU2012-8350
J. Eberle, R. Gerlach, S. Hese, and C. Schmullius
Siberian Earth System Science Cluster - A web-based Geoportal to provide user-friendly Earth Observation Products for supporting NEESPI scientists
- BG66 EGU2012-5028
A. Olchev, E. Novenko, and E. Volkova
Modeling approaches to describe H₂O and CO₂ exchange in mare ecosystems
- BG67 EGU2012-12492
Q. Zhuang, D. Kicklighter, Y. Cai, N. Tchebakova, E. Parfenova, J. Melillo, J. Reilly, S. Paltsev, A. Sokolov, A. Shvidenko, A. Sirin, G. Zhou, S. Maksyutov, and A. Peregón
The Role of Climate Change and Human Activities in Northern Eurasia on Global Changes of Land Cover and Land Use and Carbon Biogeochemistry
- BG68 EGU2012-6622
T. Bohn, S. Maksyutov, H.-S. Kim, M. Glagolev, R. Schroeder, K. McDonald, E. Podest, X. Chen, **B. Livneh**, and D. Lettenmaier
Bracketing the range of lake and wetland methane emissions rates in West Siberia using models, in situ observations, and remote sensing

- BG69 EGU2012-6798
N. Kuzmina
Analysis of Scots pine forest-seed zoning in Siberia
- BG70 EGU2012-6251
V. Khlyustov
Information system of forest growth and productivity by site quality type and elements of forest
- BG71 EGU2012-10413
A. Soja, N. Tchepakova, E. Parfenova, and G. Lysanova
Agroclimatic potential in central Siberia in an altered 21st century climate
- BG72 EGU2012-611
N.M Tchepakova, E.I. Parfenova, A.J. Soja, G.I. Lysanova, Y.N. Baranchikov, and N.A. Kuzmina
Possible climate warming effects on vegetation, forests, biotic (insect, pathogene) disturbances and agriculture in Central Siberia for 1960- 2050
- BG73 EGU2012-7703
V. Pridacha, T. Sazonova, and **A. Olchev**
Leaf photosynthesis/respiration relationships of different tree species in the northwestern part of Russia.
- BG74 EGU2012-7168
T. Sazonova, V. Pridacha, and **A. Olchev**
The water regime of silver (*Betula pendula* Roth) and Karelian (*Betula pendula* var. *carelica*) birches under sufficient and limited soil moisture conditions.
- BG75 EGU2012-1939
G.A. Ivanova, E.A. Kukavskaya, A.V. Bogorodskaya, V.A. Ivanov, S.V. Zhila, and S.G. Conard
Fire Impact on Surface Fuels and Carbon Emissions in Scots pine Logged Sites of Siberia
- BG76 EGU2012-204
E.A. Kukavskaya, G.A. Ivanova, A.J. Soja, and S.G. Conard
Biomass burning emissions estimates in the boreal forests of Siberia
- BG77 EGU2012-733
A. Panov, X. Chi, J. Winderlich, W. Birmili, J.V. Lavri?, and M.O. Andreae
Impact of wildfire emissions on trace gas and aerosol concentration measured at the Zotino Tall Tower Observatory (ZOTTO) in Central Siberia
- BG78 EGU2012-2029
S. Zibtsev, J.G. Goldammer, and D. Gilitukha
Contribution of agricultural and forest fires in Ukraine to impact of Eurasian burnings on Arctic
- BG79 EGU2012-5966
V. P. Shevchenko, A.N. Novigatsky, V.M. Kopeikin, and D.P. Starodymova
The distribution of atmospheric black carbon in marine boundary layer over the seas of the western part of the Russian Arctic in September - October 2011
- BG80 EGU2012-3834
N. Kovaleva, G.A. Ivanova, and S.G. Conard
Post-fire succession of ground vegetation of central Siberia in Scots pine forests
- BG81 EGU2012-4776
M. Forkel, K. Thonicke, C. Beer, W. Cramer, S. Bartalev, and C. Schmullius
Permafrost as an additional driving factor for the extreme fire event in the boreal Baikal region in 2003
- BG82 EGU2012-2547
A.S. Prokushkin, O.S. Pokrovsky, M.A. Korets, L.V. Karpenko, and S.V. Titov
Element transport to riverine system from forest-peatland complexes: ZOTTO footprint area

BG7.2 – Nexus between microbes, metals and minerals in the environment (co-sponsored by the European Association of Geochemistry (EAG)) – Orals

Convener: H. Veeramani | Co-Conveners: D. S. Alessi, A. Kappler, M. Hochella, C. Schmidt, A. Meibom

Room: 23

Chairperson: Harish Veeramani, Daniel Alessi, Andreas Kappler, Anders Meibom, Caroline Schmidt & Michael F. Hochella

- 15:30–15:45 EGU2012-9149
J. Peña, K.D. Kwon, J.R. Bargar, and G. Sposito
Mechanisms of trace metal sorption in *Pseudomonas putida*-birnessite assemblages
- 15:45–16:00 EGU2012-9919
K. Küsel
EAG Eminent Speaker: Cold war biogeochemistry: Microbes as architects for metal attenuation
- 16:00–16:15 EGU2012-6670
M.I. Boyanov, B. Mishra, D.E. Latta, X. Rui, M.-J. Kwon, K.E. Fletcher, F.E. Loeffler, E.J. O'Loughlin, and K.M. Kemner
Bioreduction of U(VI) in the presence of phosphate

- 16:15–16:30 EGU2012-13017
P.C. Bennett and A.A. Jones
 Minerals as habitat: A special relationship between a microbe and its mineral
- 16:30–16:45 EGU2012-6645
M. Dittrich, L. Monreau, S. Quazi, B. Raoof, A. Chesnyuk, S. Katsev, and R Fulthorpe
 Geomicrobiology of Fe-rich crusts in Lake Superior sediment
- 16:45–17:00 EGU2012-6726
R. Vannela, C Zhou, and B. E. Rittmann
 Multiple Roles of *Desulfovibrio vulgaris* to U (VI) Reduction and Long-term Stability of Uraninite (UO₂)

OS4.5 – SENSEnet: Marine sensor development for the 21st Century (co-listed) – Orals

Convener: D. Connelly | Co-Conveners: V. Garçon, F. Wenzhoefer

Room: 9

Chairperson: Douglas Connelly

- 08:30–08:45 EGU2012-3774
K. Johnson
 Chemical Sensors for a Global Observing System
- 08:45–09:00 EGU2012-2102
C. Barus, W. Giraud, D. Thouron, M. Comtat, V. Garçon, M. Armengaud, and N. Striebig
 Electrochemical microsensor for in situ measurements of dissolved silicate in marine systems
- 09:00–09:15 EGU2012-4408
A. Meier, N.M. Tsaloglou, D. Connelly, B. Keevil, and M. Mowlem
 Analysis of hyper-baric biofilms on engineering surfaces formed in the Deep Sea
- 09:15–09:30 EGU2012-12890
M.-N. Tsaloglou, C.M. Loukas, J.M. Ruano-López, H. Morgan, and M.C. Mowlem
 An integrated microfluidic sensor for real-time detection of RNA in seawater using preserved reagents
- 09:30–09:45 EGU2012-14050
S Borisov and I Klimant
 New Optical Sensing Materials for Application in Marine Research
- 09:45–10:00 EGU2012-11984
 M. Marcelli, **V. Piermattei**, and U. Mainardi
 T-Flap advances: instrumental and operative implementation

COFFEE BREAK

Chairperson: Veronique Garçon

- 10:30–10:45 EGU2012-11471
D. Donis, F. Janssen, M. Böttcher, D. McGinnis, M. Holtappels, and F. Wenzhöfer
 Application of an eddy correlation system for the estimation of oxygen benthic fluxes in coastal permeable sediments impacted by submarine groundwater discharge
- 10:45–11:00 EGU2012-11143
J. Chapman, A. Lawlor, and F. Regan
 Bio-inspired Design Approached Antifouling Strategies
- 11:00–11:15 EGU2012-11894
U. Marzocchi, N.P. Revsbech, L.P. Nielsen, and N. Risgaard-Petersen
 Distant electric coupling between nitrate reduction and sulphide oxidation investigated by an improved nitrate microscale biosensor
- 11:15–11:30 EGU2012-11060
K. Koop-Jakobsen, J. Fischer, and F. Wenzhöfer
 A novel Multi-Fiber Optode sensor system (MuFO) for monitoring oxygen
- 11:30–11:45 EGU2012-4435
A. Chennu, N. Volkenborn, F. Janssen, and L. Polerecky
 Mapping the in situ microscale distribution of microphytobenthic biomass in coastal sediments: a hyperspectral methodology
- 11:45–12:00 EGU2012-2324
E. R. Reggiani and R. G. J. Bellerby
 An autonomous spectrophotometric system for high resolution measurement of seawater pH

OS4.5 – SENSEnet: Marine sensor development for the 21st Century (co-listed) – Posters

Convener: D. Connelly | Co-Conveners: V. Garçon, F. Wenzhoefer

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Douglas Connelly

- XY389 EGU2012-4564
A. Milani, C. F. A. Floquet, D. Connelly, M. C. Mowlem, and P. J. Statham
Microfluidic technology for in-situ detection of iron at low concentration in seawater
- XY390 EGU2012-11235
R. Zmijan, S. Abi Kaed Bey, M. C. Mowlem, and H. Morgan
Micro Flow Cytometry Miniaturisation - Towards in-situ Optical Phytoplankton Analysis
- XY391 EGU2012-3504
Y. Marcon, H. Sahling, and G. Bohrmann
The use of photo-mosaics, bathymetry and sensor data into geographic information system for site description and faunal distribution analysis at the Menez Gwen Hydrothermal vent field
- XY392 EGU2012-5217
M. Tomczyk, G. Bohrmann, I. C. Wright, H. Sahling, and C. Waldmann
Hydroacoustic investigation of the emissions of gas from the seabed in fieldwork and experimental studies
- XY393 EGU2012-6258
M. Kononets, A. Tengberg, D. Atamanchuk, C. Waldmann, A. Behnken, and P.O.J. Hall
Quality control of long-term oxygen and related observations at the Koljoe Fjord Observatory, Sweden
- XY394 EGU2012-11790
R. Martellucci, M. Marcelli, and **U. Mainardi**
Low-cost instrumentation for high-resolution coastal monitoring
- XY395 EGU2012-12442
M. Marcelli, A. Madonia, V. Piermattei, and U. Mainardi
Results of instrumental and operative implementation of T-Flap
- XY396 EGU2012-10414
A. Kolomijeca, Y.-H. Kwon, **H. Ahmad**, and H.-D. Kronfeldt
Next generation in-situ optical Raman sensor for seawater investigations
- XY397 EGU2012-10125
Y.-D. Kwon, A. Kolomijeca, H.. Ahmad, and H.-D. Kronfeldt
Introducing a new high sensitive surface-enhanced Raman substrate for monitoring PAHs in sea-water
- XY398 EGU2012-1586
J. Jonca, D. Thouron, C. Comtat, N. P. Revsbech, and V. Garçon
Electrochemical methods for autonomous chemical (phosphate and oxygen) monitoring in the ocean in the Oxygen Minimum Zone
- XY399 EGU2012-2053
J. P. Fischer, A. Wittstock, F. Wenzhöfer, and M. Bäumer
Switchable trace oxygen optode - combining the principle of the STOX electrode with optical oxygen sensors
- XY400 EGU2012-2685
C. Gabriel, A. Khalighi, S. Bourennane, P. Léon, and V. Rigaud
Optical Communication System for an Underwater Wireless Sensor Network
- XY401 EGU2012-6189
F.-E. Legiret, S.K. Abi Kaed Bey, V.J. Sieben, E.M.S. Woodward, M.C. Mowlem, D.P. Connelly, and E.P. Achterberg
Towards nanomolar nutrients sensors for the marine environment.
- XY402 EGU2012-12268
T Feseker, G Wetzal, and B Heesemann
A new device for high precision in situ sediment temperature profile measurements at the seafloor
- XY403 EGU2012-8384
D. Atamanchuk, P.O.J. Hall, A. Tengberg, J. Hovdenes, P.J. Thomas, and A. Apostolidis
Improvement and use of an optical pCO₂ sensor in the marine environment
- XY404 EGU2012-9690
A. Tengberg
Multivariate statistical methods used in sensor development and on-line analyzing of data from marine observatories
- XY405 EGU2012-10775
C. Briciu-Burghina and F. Regan
The role of continuous monitoring as a decision support tool: A Dublin Port deployment.
- XY406 EGU2012-3012
V. M.C. Rerolle, C. F. A Floquet, M. C. Mowlem, A. J. K. Harris, R. G. J. Bellerby, and E. P. Achterberg
Development of a colorimetric micro-sensor for seawater pH analysis: microfluidic design and oceanic deployment

Wednesday, 25 April

BG2.1 – Biogeochemistry and ecohydrology of arid and semi-arid ecosystems – Orals

Convener: W. L. Kutsch | Co-Conveners: Dr. Mamtimin, F. X. Meixner, C. Brümmer, LM Merbold

Room: 24

Chairperson: W.L. Kutsch, F.X. Meixner

- 13:30–13:45 EGU2012-1260
R. Grant
 Ecological Controls on Net Ecosystem Productivity of a Seasonally Dry Annual Grassland under Current and Future Climates: Modelling with Ecosys
- 13:45–14:00 EGU2012-3621
Y. Qi, F. Meixner, Z. Wu, S. Beirle, T. Wagner, M. Andreae, and B. Mamtimin
 Tropospheric NO₂ column densities over oases of the Taklamakan desert (NW-China): satellite DOAS observations and ground based Multi Axis DOAS measurements
- 14:00–14:15 EGU2012-4027
T. Klein, E. Cohen Hilaleh, N. Raz Yaseef, E. Rotenberg, Y. Preisler, S. Cohen, and D. Yakir
 Quantification of transpirable soil water explains tree water use dynamics in a semi-arid pine forest
- 14:15–14:30 EGU2012-6786
P.A. Fay, B.A. Newingham, H.W. Polley, J.A. Morgan, D.R. LeCain, R.S. Nowak, and S.D. Smith
 Rising atmospheric CO₂ effects on productivity: Feedbacks from soil moisture and species change in mesic, semi-arid, and arid systems
- 14:30–14:45 EGU2012-11156
A.D. Fechner, T. Behrendt, M. Bruse, B. Mamtimin, M.O. Andreae, and F.X. Meixner
 Fertilizer impact on biogenic nitric oxide emissions from agricultural soils of the Taklimakan desert (Xinjiang, China)
- 14:45–15:00 EGU2012-13637
D. Liberati, G. Guidolotti, G. de Dato, and P. De Angelis
 Adaptation mechanism to drought in the Mediterranean shrub *Cistus monspeliensis*

BG2.1 – Biogeochemistry and ecohydrology of arid and semi-arid ecosystems – Posters

Convener: W. L. Kutsch | Co-Conveners: Dr. Mamtimin, F. X. Meixner, C. Brümmer, LM Merbold

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: L. Merbold, C. Brümmer, B. Mamtimin

- BG1 EGU2012-2142
E. Hamerlynck, R. Scott, V. Polyakov, Z. Sugg, M.S. Moran, J. Stone, and M. Nearing
 Watershed and ecosystem responses to invasive grass establishment and dominance across a desert grassland watershed
- BG2 EGU2012-3688
K. Skolaut, T. Awada, P. Cherubini, A. Schapaugh, and J. Huddle
 Impacts of stream flow and climate variability on native and invasive woody species in a riparian ecosystem of a semi-arid region of the Great Plains, USA
- BG3 EGU2012-4131
Z. Wu, T. Behrendt, B. Mamtimin, and F. Meixner
 Characterization of soil respiration rates along a temporal restoration gradient in a degenerated wetland of the arid region in NW-China
- BG4 EGU2012-5618
Y. Dong, Y. Qi, and Q. Peng
 Effects of nitrogen fertilization on soil N₂O emissions and soil respiration in temperate grassland in Inner Mongolia, China
- BG5 EGU2012-10117
C. Wang
 Interactive effects of nitrogen addition and clipping on microbial nitrogen transformations and biomass in an old field in Inner Mongolia
- BG6 EGU2012-10170
O. Sus, J. Martínez-Vilalta, R. Poyatos, and M. Williams
 Constraining key hydraulic parameters of Scots Pine through sapflow data assimilation along a climatic gradient
- BG7 EGU2012-10763
F. X. Meixner, T. Behrendt, M. Ermel, N. Hempelmann, M.O. Andreae, and P. Jöckel
 Large-scale distribution of surface ozone mixing ratio in southern Mongolia: A survey

- BG8 EGU2012-10980
T. Behrendt, M. Bruse, B. Mamtimin, M.O. Andreae, and F.X. Meixner
 A systematic study of pre-incubation on the release of nitric oxide from arid soils
- BG9 EGU2012-12318
W. L. Kutsch, L. Merbold, and MM Mukelabai
 The Charcoal Trap: Miombo Woddlands and the Energy Demands of People
- BG10 EGU2012-12580
M. Badawy
 Integration of remote sensing and GIS for studying a short-term flashflood in the El Arish Catchment (Egypt)
- BG11 EGU2012-12688
M. Badawy, Z. Wu, T. Behrendt, A.D. Fechner, F.X. Meixner, M.O. Andreae, and B. Mamtimin
 Area integrated emission of biogenic nitric oxide by Lagrangian dispersion modeling (LASAT): Milan oasis, Taklimakan desert (Xinjiang, PR China)
- BG12 EGU2012-12912
B. Mamtimin, A.M.M. Et-Tantawi, D. Schäfer, F.X. Meixner, and M. Domroes
 Recent trends of temperature change under hot and cold desert climates: Comparing the Sahara (Libya) and Central Asia (Xinjiang, China)
- BG13 EGU2012-13006
M. Giese, Y.Z. Gao, H. Brueck, and K. Butterbach-Bahl
 N dynamics of Inner Mongolia typical steppe as affected by grazing
- BG14 EGU2012-13436
C. Brümmer and N. Brüggemann
 Greenhouse gas exchange in West African savanna ecosystems - how important are emissions from termite mounds?

BG2.8 – Remote Sensing and data assimilation in the Biogeosciences (co-sponsored by iLEAPS) – Orals

Convener: F. Veroustraete | Co-Conveners: A. Reissell, K. Scipal, J. Moreno, W. W. Verstraeten

Room: 24

Chairperson: Frank Veroustraete

- 15:30–15:45 EGU2012-583
D. Fu and B. Chen
 Predicting gross primary production with high spatio-temporal resolution remote sensing datasets at regional scale
- 15:45–16:00 EGU2012-12611
H. Croft, J.M. Chen, Y. Zhang, and A. Simic
 Modelling spatio-temporal variations in leaf chlorophyll content for broadleaf and needle forest canopies
- 16:00–16:15 EGU2012-11736
S. Natali, A. Collalti, A. Candini, A. Della Vecchia, and R. Valentini
 Assimilation of high resolution satellite imagery into the 3D-CMCC forest ecosystem model
- 16:15–16:30 EGU2012-138
S. Ullah, M. Schlerf, A.K. Skidmore, and C. Hecker
 Identifying plant species using MIR and TIR (2 - 14 µm) emissivity spectra
- 16:30–16:45 EGU2012-5648
X. Shang, P. Chazette, K. Soudani, and E. Dufrêne
 Lidar sampling study over the Barbeau/Fontainebleau forest
- 16:45–17:00 EGU2012-12463
C.J. Kemper Pacheco, S. Fares, F. Loreto, and P. Ciccioli
 A model to assess the emission of individual isoprenoids emitted from Italian ecosystems

BG2.8 – Remote Sensing and data assimilation in the Biogeosciences (co-sponsored by iLEAPS) – Posters

Convener: F. Veroustraete | Co-Conveners: A. Reissell, K. Scipal, J. Moreno, W. W. Verstraeten

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Willem W. Verstraeten

- BG15 EGU2012-8856
J. Heiskanen, M. Rautiainen, P. Stenberg, E. Eigemeier, T. Majasalmi, M. Möttus, and V.-H. Vesanto
 Narrowband vegetation indices in boreal forest LAI estimation: the effect of reflectance seasonality
- BG16 EGU2012-9588
A. Chahbi, M. Zribi, Z. Lili-Chabaane, B. Duchemin, M. Shabou, B. Mougenot, and G. Boulet
 Prediction of grain yield using optical remote sensing and a growth model: application on Merguellil catchment (Tunisia)

- BG17 EGU2012-10201
F. Baup, R. Fieuzal, C. Marais-Sicre, J. F. Dejoux, V. le Dantec, P. Mordelet, M. Claverie, V. Demarez, O. Hagolle, A. Lopes, P. Keravec, E. Ceschia, A. Mialon, and R. Kidd
 MCM'10: An Experiment for satellite Multispectral Crop Monitoring. From high to low resolution observations
- BG18 EGU2012-10669
G. Geppert and A. Loew
 Optimization of vegetation parameters through sequential assimilation of surface albedo observations
- BG19 EGU2012-13064
S. Karayusufoğlu, L. ?aylan, B. Çalda?, and E. Semizoğlu
 Assessment of Crop Growth Through Spectral Vegetation Indices
- BG20 EGU2012-13226
M. Otto, C. Höpfner, F. Maussion, and D. Scherer
 Vegetation dynamics and land-cover change along a precipitation gradient in the tropical semi-arid high Andes
- BG21 EGU2012-11880
S. Van Wittenbergh, L. Alonso, J. Verrelst, F. Veroustraete, R. Valcke, J. Moreno, and R. Samson
 Estimating fluorescence emission of city trees in Valencia: from leaf to canopy level
- BG22 EGU2012-14191
F. Veroustraete, W.W. Verstraeten, K. Hufkens, B. Grielen, F. Colson, and E. Prinsen
 Physical Modelling of Nikon Coolpix Camera RGB Responses for Application in non-Destructive Leaf Chlorophyll Imaging
- BG23 EGU2012-5392
G. Bigeard, B. Coudert, L. Jarlan, S. Er-Raki, and S. Khabba
 Estimating evapotranspiration over agricultural landscapes with thermal infrared data: comparison of two approaches using Simple Energy Budget and SVAT modeling.
- BG24 EGU2012-9035
R. Fieuzal, F. Baup, and C. Marais-Sicre
 Radar data sensitivity to crops using TerraSAR-X, Radarsat-2 and Alos satellite data
- BG25 EGU2012-812
Q.M. Ma, J. Li, Q. Liu, and Q.H. Liu
 Study on Mixed-Pixel Clumping Index Calculation and Validation
- BG26 EGU2012-4915
J. Verrelst, J.P. Rivera, G. Leonenko, L. Alonso, and J. Moreno
 Using the ARTMO toolbox for automated retrieval of biophysical parameters through radiative transfer model inversion: Optimizing LUT-based inversion
- BG27 EGU2012-1984
J. Van doninck, J. Peters, B. De Baets, E. Ducheyne, and N.E.C. Verhoest
 Using remote sensing and machine learning for the spatial modelling of a bluetongue virus vector
- BG28 EGU2012-3011
J.M. Barrios, W.W. Verstraeten, J. Farifteh, P. Maes, J.M. Aerts, and P. Coppin
 Incorporating NDVI in a gravity model setting to describe spatio-temporal patterns of Lyme borreliosis incidence
- BG29 EGU2012-3063
V. Kozma-Bognar, J. Berke, and G. Martin
 Application possibilities of aerial and terrain data evaluation in particulate pollution effects

BG2.15 – Biotic interactions and biogeochemical processes – Orals

Convener: M. Bahn | Co-Conveners: R. Bardgett, M. Reichstein, S. Quideau, M. Preston, A. Munson

Room: 24

Chairperson: n.n.

- 08:30–08:45 EGU2012-3369
Y. Kuzyakov
 Priming effects: interactions between living and dead organic matter
- 08:45–09:00 EGU2012-4444
 A. Lindén, J. Heinonsalo, M. Oinonen, E. Sonninen, E. Hiltavuori, and **J. Pumpanen**
 Labile carbon regulates protease activity and nitrogen acquisition in boreal forest topsoil.
- 09:00–09:15 EGU2012-11716
J.T. Weedon, R. Aerts, G.K. Kowalchuk, and P.M. van Bodegom
 Microbial biomass dynamics dominate N cycle responses to warming in a sub-arctic peatland
- 09:15–09:30 EGU2012-8669
M.-C. Nilsson
 Nitrogen fixation in Boreal feather moss communities
- 09:30–09:45 EGU2012-6370
N.T. Roulet
 Relationship between peatland hydrology and biogeochemistry

09:45–10:00 EGU2012-1870

R. Bradley

Bottom-up effects of geologic parent material through ecological interaction webs

COFFEE BREAK

Chairperson: n.n.

10:30–10:45 EGU2012-3723

M. Allen

Direct in situ measurement of Carbon Allocation to Mycorrhizal Fungi in a California Mixed-Conifer Forest

10:45–11:00 EGU2012-12373

A.D. Richardson, M.S. Carbone, C.I. Czimczik, T.F. Keenan, P. Schaberg, P. Murakami, and X. Xu

Interannual and seasonal dynamics, and the age, of nonstructural carbohydrate pools in the stemwood of temperate trees across a climatic gradient in the Northeastern US

11:00–11:15 EGU2012-4391

J. Bloemen, M.A. McGuire, D.P. Aubrey, R.O. Teskey, and K. Steppe

Transport of root-derived CO₂ via the transpiration stream affects aboveground tree physiology

11:15–11:30 EGU2012-6359

S. Lavorel, K. Grigulis, U. Krainer, N. Legay, C. Turner, M. Dumont, E. Kastl, C. Arnoldi, R. Bardgett, F.

Poly, T. Pommier, M. Schlöter, U. Tappeiner, M. Bahn, and J.-C. Clément

How plant functional traits cascade to microbial function and ecosystem services in mountain grasslands

11:30–11:45 EGU2012-4591

F.T. de Vries, P. Manning, and R.D. Bardgett

Plant traits explain landscape-scale variation in C stocks and soil microbial communities

11:45–12:00 EGU2012-10747

J.M. Grünzweig and M. Sternberg

Biotic controls over the carbon cycle in dryland ecosystems under climate change

BG2.15 – Biotic interactions and biogeochemical processes – Posters

Convener: M. Bahn | Co-Conveners: R. Bardgett, M. Reichstein, S. Quideau, M. Preston, A. Munson

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

BG30 EGU2012-11371

C. Kaiser, Z.M. Solaiman, M.R. Kilburn, P.L. Clode, L. Fuchslueger, M. Koranda, and D.V. Murphy

Carbon flux from plants to soil microbes is highly sensitive to nitrogen addition and biochar amendment

BG31 EGU2012-10205

M Schmitt, R Siegwolf, A Ekblad, N Pfahringer, and M Bahn

Effects of assimilate supply on root and microbial components of soil respiration in a mountain grassland.

BG32 EGU2012-3973

L. Schwendenmann and K. Rogers

Linkages between tree species identity and soil organic matter chemistry in an experimental plantation in Central Panama

BG33 EGU2012-3987

B. Michalzik

Insects, infestations and nutrient fluxes

BG34 EGU2012-7413

N. Legay, S. Lavorel, E. Personeni, MP. Bataillé, TM. Robson, and JC. Clément

Temporal variation in the nitrogen uptake competition between plant community and soil microbial community

BG35 EGU2012-8321

A. Scheibe*, V. Eißfeller, C. Langenbruch, J. Seven, and G. Gleixner

Effect of Leaf Litter Diversity on Dissolved Organic Matter Export in a Deciduous Forest Soil

BG36 EGU2012-8448

S. Thiessen*, G. Gleixner, T. Wutzler, and M. Reichstein

Temperature sensitivity of different soil carbon sources

BG37 EGU2012-1441

S. Leitner, K.M. Keiblinger, and S. Zechmeister-Boltenstern

Leaf litter decomposition of four different deciduous tree species - resource stoichiometry, nutrient release and microbial community composition

- BG38 EGU2012-10516
P. Favas, J. Pratas, and M.E.P. Gomes
Biogeochemistry of tungsten in soils and tailings of mining areas (Northern Portugal)
- BG39 EGU2012-12503
B. Majumder, M. Gocke, Y. Kuzyakov, and G. Wiesenberger
Influence of soil moisture on C incorporation and preservation in soil
- BG40 EGU2012-576
E. Lukacheva and N. Manucharova
Chitinolytic and pectinolytic community in the vertical structure of chernozem's zone ecosystems
- BG41 EGU2012-10894
O Franklin, T. Näsholm, P. Höglberg, D. Metcalfe, S. G. Keel, C. Campbell, V. Hurry, S. Linder, and M. N. Höglberg
Understanding mycorrhizal symbiosis in boreal forest
- BG42 EGU2012-11989
C.M. Preston, J.S. Bhatti, C.E. Norris, S.A. Quideau, and C. Arevalo
Chemical properties of litter inputs and organic matter along the Canadian Boreal Forest Transect Case Study
- BG43 EGU2012-3735
C. E. Norris, S. A. Quideau, and D. E. Macey
Mineralization of ¹³C glucose in three fine textured soils from the western boreal forest
- BG44 EGU2012-8374
U. Hagemann, M. T. Moroni, C. H. Shaw, and W. A. Kurz
The impact of bryophytes on the carbon stocks of northern boreal forest soils
- BG45 EGU2012-12315
A. Nouratpour, M. Ernfors, M. Nordgren, P. Weslien, A. Ekblad, and L. Klemetsson
Separation of soil CO₂ flux into autotrophic/heterotrophic sources and their dependence on environmental factors, from a drained boreal spruce forest.
- BG46 EGU2012-3797
L.N. Soucemarianadin, R.E. Wasylshen, M.D. MacKenzie, and S.A. Quideau
Black Carbon characterization in Quebec black spruce forests
- BG47 EGU2012-13536
R. Grant, S. Mezbahuddin, and L. Flanagan
Modeling ecohydrological controls on net CO₂ exchange of a boreal fen
- BG48 EGU2012-3769
S.M. Landhäusser, J. Snedden, U. Silins, and K.J. Devito
Vertical and horizontal root distribution of mature aspen clones: mechanisms for resource acquisition
- BG49 EGU2012-2045
A. Smolander and V. Kitunen
Organic matter characteristics in boreal forest soils under stands of silver birch, Norway spruce, and Norway spruce with a mixture of silver birch
- BG50 EGU2012-13781
S. Pelletier-Bergeron, **R. Bradley**, and A.D. Munson
Does temperature of charcoal creation affect subsequent mineralization of soil carbon and nitrogen?

HS10.5/BG2.21 – Geological and hydro-biogeochemical feedbacks shaping habitats and biodiversity in terrestrial systems (co-organized) – Posters

Convener: D. Or | Co-Conveners: G. Berberich, A. Hildebrandt, K. Caylor, U. A. Glasmacher

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A356 EGU2012-93
M. Heidak, U.A. Glasmacher, H.F. Schöler, and J.M. Hernández-Moreno
The use of leaves and roots of *Laurus novocanariensis* as an indicator for soil and rock chemical composition in the environment of a subtropical cloud forest (Tenerife, Canary Islands, Spain).
- A357 EGU2012-548
M. El-Shafeiy, D. Birgel, A. El-Kammar, A. El-Barkooky, and J. Peckmann
Ecological and Post-Depositional Changes across the Cretaceous-Palaeocene succession Inferred from Molecular Fossils in Black Shales, Egypt
- A358 EGU2012-864
F. Coudoul, F. Moulin, and T. Bonometti
Role of local conditions of a turbulent boundary layer flow on the colonization and growth of a biofilm: direct numerical simulations and experiments
- A359 EGU2012-1845
R.P. Bartholomeus, J.P.M. Witte, P.M. van Bodegom, J.C. van Dam, and R. Aerts
Contrasting extremes in water-related stresses determine species survival

- A360 EGU2012-2054
F. Carrara, F. Altermatt, I. Rodriguez-Iturbe, and A. Rinaldo
Dendritic connectivity controls biodiversity patterns in experimental metacommunities
- A361 EGU2012-2359
S. Ceola, E. Bertuzzo, L. Mari, G. Botter, I. Hödl, T. Battin, and A. Rinaldo
Hydrologic drivers and controls of stream biofilm-grazer interactions
- A362 EGU2012-2782
N. Claes and D. Or
Sporulation and Germination patterns - hedging a bet on long term microbial survivability in dry soil
- A363 EGU2012-3079
A. Giometto, F. Carrara, F. Altermatt, and A. Rinaldo
Microcosms metacommunities in river network: niche effects and biodiversity
- A364 EGU2012-3488
G. Berberich, D. Klimetzek, U. Schreiber, and M. Berberich
Geogenic Gases and Red Wood Ant Clusters as Indicators for Neotectonic Activity at the Peninsula Bodanrück (South West Germany)
- A365 EGU2012-5213
G. Fyttis, S. Reizopoulou, and E. Papastergiadou
Biodiversity patterns of macrophyte and macroinvertebrate communities in two lagoons of Western Greece.
- A366 EGU2012-6268
A.Ya. Sidorin and A.V. Deshcherevskii
Biological Indicators in Studies of Earthquake Precursors
- A367 EGU2012-8993
G. Wang and D. Or
A biophysical index for predicting hydration-mediated microbial diversity in soils
- A368 EGU2012-12851
K.E. Kaiser, B. McGlynn, and R. Emanuel
Mountain pine beetle infestation impacted by water availability

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Posters

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Gimenez

- XY426 EGU2012-2287
J.C. Cañasveras, V. Barrón, M.C. Del Campillo, and R.A. Viscarra Rossel
Reflectance spectroscopy: a tool for predicting the risk of iron chlorosis in soils
- XY427 EGU2012-2648
C. Fallico, S. Straface, F. Chidichimo, **A.P. Ferrante**, and S. De Bartolo
Experimental evidences on the scaling behavior of a sandy porous media.
- XY428 EGU2012-5374
S.I.E. Ern, **L. Trombino**, and C. Cattaneo
Micromorphological Aspects of Forensic Geopedology II: Ultramicroscopic vs Microscopic Characterization of Phosphatic Impregnations on Soil Particles in Experimental Burials
- XY429 EGU2012-7695
K. Beerten, N. Vandersmissen, B. Rogiers, and D. Mallants
Assessing soil hydrological variability at the cm- to dm-scale using air permeameter measurements
- XY430 EGU2012-13787
R. Bermudez, A. Marcano Cerdeño, A.M. Tarquis, and D. Andina
Discrimination of different sub-basins on Tajo River based on water influence factor
- XY431 EGU2012-14051
F. Ballesteros, J. de Castro, A.M. Tarquis, and A. Méndez
Analysis of soil images applying Laplacian Pyramidal techniques
- XY432 EGU2012-14052
A.M. Tarquis, M.E. Sanchez, J.M. Antón, J. Jimenez, A. Saa-Requejo, D. Andina, and **J.W. Crawford**
Sensitivity analysis of geometrical and topological parameters to the thresholding soil images
- XY433 EGU2012-14057
A.M. Tarquis, N.R.A. Bird, **E. Perrier**, and J.W. Crawford
Multifractal Analysis in Binary Images
- XY434 EGU2012-14073
H. Millan, A.M. Tarquis, L.D. Pérez, J. Matos, and M. González-Posada
Geostatistical analysis of soil properties at field scale using standardized data

- XY435 EGU2012-14123
P.L. Aguado, J.P. del Monte, R. Moratiel, and A.M. Tarquis
Multiscaling analysis applied to landscape spatial characterization influenced by reservoir level
- XY436 EGU2012-14181
F. Portilla, J.L. Valencia, A.M. Tarquis, and A. Saa-Requejo
Robust regression applied to fractal/multifractal analysis.
- XY437 EGU2012-14185
R. Cumbreira, A.M. Tarquis, G. Gascó, and H. Millán
Prefractal scaling of apparent soil moisture estimated from vertical planes of Vertisol pit images
- XY438 EGU2012-14342
C. Alonso, **R.M. Benito**, and A.M. Tarquis
Comparison of fractal dimensions based on segmented NDVI fields obtained from different remote sensors.
- XY439 EGU2012-14054
A.M. Tarquis, **M.T. Castellanos**, M.C. Cartagena, F. Ribas, M.J. Cabello, A. Arce, and N.R.A. Bird
Scale and space dependencies of Nitrogen variability
- XY440 EGU2012-14359
R. Heck, N.T. Scaiff, D. Andina, and A.M. Tarquis
Influence of voxel size settings in X-Ray CT Imagery of soil in scaling properties
- XY441 EGU2012-260
O.A. Hachay, A.Y. Khachay, and O.Y. Khachay
Geosynergetic Approach for Analyze of Rock State, Theoretical and Experimental Redlts
- XY442 EGU2012-1543
E. Vidal Vázquez, J. G. V. Miranda, and J. Paz-Ferreiro
Multiscale Analysis of Soil Porosity from Hg Injection Curves in Soils from Minas Gerais, Brazil
- XY443 EGU2012-3705
M. Marinho, J. R. Raposo, J. M. Mirás Avalos, and A. Paz González
Statistical and Multifractal Evaluation of Soil Compaction in a Vineyard
- XY444 EGU2012-13613
C. dos Santos Bonini, M. C. Alves, and A. Paz González
Multifractal Characteristics of Bimodal Mercury Pore Size Distribution Curves
- XY445 EGU2012-14371
J. Rodriguez-Gonzalez, A. Saa-Requejo, J.A. Gómez, J.L. Valencia, P. Zarco, and **A.M. Tarquis**
Soil surface roughness and porosity under different tillage systems
- XY446 EGU2012-14210
M. Leopold, J. Völkl, D. Dethier, J. Huber, and M. Steffens
Characteristics of a paleosol and its implication for the Critical Zone development, Rocky Mountain Front Range of Colorado, USA.

SSS3.6/BG2.24 – Land use and land management impacts on soil organic carbon (SOC) dynamics: from the long term experiment to the national inventory (co-organized) – Orals

Convener: B. van Wesemael | Co-Conveners: A. Don, R. Jandl, J. Leifeld, M.A. Muñoz, R. Zornoza

Room: 3

Chairperson: Bas van Wesemael

- 13:30–14:00 EGU2012-3033
S. Grunwald
Implications of Different Worldviews to Assess Soil Organic Carbon Change
- 14:00–14:15 EGU2012-4239
C. Poeplau and A. Don
Vulnerability of SOC stocks and fractions to different land-use change types in Europe
- 14:15–14:30 EGU2012-4197
O. van Straaten, E. Veldkamp, K. Wolf, and M. D. Corre
Effects of land use change on soil organic carbon: a pan-tropic study
- 14:30–14:45 EGU2012-1817
R. Jandl
Deriving reference values for the soil carbon pool for different forms of land use
- 14:45–15:00 EGU2012-11987
C. Ammann, J. Leifeld, A. Neftel, and J. Fuhrer
Direct comparison of repeated soil inventory and carbon flux budget to detect soil carbon stock changes in grassland

Chairperson: Maria Munoz Garcia

- 15:30–15:45 EGU2012-1590
P. Gottschalk, P. Lasch, F. Suckow, F. Hattermann, A. Luettger, and F. Wechsung
 Simulating the impact of land use and climate change on the German soil-carbon, -nitrogen- and -water balance
- 15:45–16:00 EGU2012-259
M. Wiesmeier, M. von Lützow, P. Spörlein, U. Geuß, E. Hangen, A. Reischl, B. Schilling, and I. Kögel-Knabner
 Soil organic carbon stocks in southeast Germany as affected by land use, soil type and sampling depth
- 16:00–16:15 EGU2012-4247
M. Nocita, A. Stevens, D. De Brogniez, F. Bampa, G. Toth, P. Panagos, B. van Wesemael, and L. Montanarella
 Prediction of SOC content at European scale by coupling Vis-NIR spectroscopy and a modified local PLSR algorithm
- 16:15–16:30 EGU2012-11406
R. Zornoza, M.A. Muñoz, and A. Faz
 Carbon mineralization and soil fertility at high altitude grasslands in the Bolivian Andean
- 16:30–16:45 EGU2012-5470
D. Hiltbrunner, F. Hagedorn, P.A. Niklaus, S. Zimmermann, and M.W.I. Schmidt
 Moderate effects of reforestation with Norway spruce (*Picea abies*) on carbon storage and turnover in a Swiss sub-alpine pasture
- 16:45–17:00 EGU2012-1041
S. Grand and L. M. Lavkulich
 Effects of logging disturbance on soil organic carbon and related variables in the Coastal Range of British Columbia, Canada

SSS3.6/BG2.24 – Land use and land management impacts on soil organic carbon (SOC) dynamics: from the long term experiment to the national inventory (co-organized) – Posters

Convenor: B. van Wesemael | Co-Conveners: A. Don, R. Jandl, J. Leifeld, M.A. Muñoz, R. Zornoza

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Axel Don

- XY578 EGU2012-9532
T. Medinski and D. Freese
 Soil carbon stabilization and turnover at alley-cropping systems, Eastern Germany
- XY579 EGU2012-9962
M. de Blecourt, R. Brumme, and E. Veldkamp
 Changes in soil carbon stocks after a conversion from secondary forest to rubber - a case study for Xishuangbanna prefecture, Southwest China
- XY580 EGU2012-4900
J. Farmer, J. Smith, P. Smith, and R. Matthews
 Quantifying the impacts of land use change on soil organic carbon losses in tropical peatlands
- XY581 EGU2012-13319
 G. Roth, **H. Flessa**, M. Helfrich, and R. Well
 Impact of two different types of grassland-to-cropland-conversion on dynamics of soil organic matter mineralization and N₂O emission
- XY582 EGU2012-6398
M. Mayer and K. Katzensteiner
 Changes in soil CO₂ efflux of organic calcareous soils due to disturbance by wind
- XY583 EGU2012-3506
SH Vetter, K. Auerswald, and C. Bernhofer
 Increasing diurnal and seasonal amplitudes in carbon and water fluxes after conversion from arable to grassland
- XY584 EGU2012-5312
E. Delogu, V. LeDantec, P. Buysse, P. Mordet, and M. Aubinet
 Modelling autotrophic and heterotrophic components of soil respiration in wheat fields
- XY585 EGU2012-4823
Š. Koco, G. Barančíková, R. Skalský, Z. Tarasovičová, M. Gutteková, J. Halas, J. Makovníková, and M. Nováková
 Environmental analysis of soil organic carbon stock changes in Slovakia
- XY586 EGU2012-10842
C. Sirca, M. Carta, M. Salis, and D. Spano
 Soil organic carbon projections in Mediterranean soils under climate change conditions

- XY587 EGU2012-10870
FB Bampa, FM Morari, RH Hiederer, GT Toth, PG Giandon, IV Vinci, and LM Montanarella
Soil Organic Carbon dynamics in agricultural soils of Veneto Region
- XY588 EGU2012-9547
D. Konadu, J. Quinton, and A. Jarvis
Modelling potential soil carbon stocks across UK landscapes: Downscaling global models to the landscape scale using model emulation
- XY589 EGU2012-6353
J. Álvaro-Fuentes, M. Easter, J.L. Arrúe, C. Cantero-Martínez, and K. Paustian
Climate change effects on soil organic carbon changes in agricultural lands of Spain
- XY590 EGU2012-7868
K. Staudt, J. Leifeld, D. Bretscher, and J. Fuhrer
Towards a model-based inventory of soil organic carbon in agricultural soils for the Swiss greenhouse gas reporting
- XY591 EGU2012-4260
S. Doetterl, S. Stevens, B. Van Wesemael, T.A. Quine, and K. Van Oost
Predicting the cropland soil organic carbon (SOC) distribution on a regional scale using airborne spectroscopy and topographic features
- XY592 EGU2012-8159
F. Stevens, P. Bogaert, and B. van Wesemael
Regional SOC inventory in the Belgian loam belt
- XY593 EGU2012-3419
K. Taalab, R Corstanje, R Creamer, M Whelan, and T Mayr
Modelling soil bulk density at the landscape scale and its contributions to carbon stock uncertainty
- XY594 EGU2012-9433
M. Pohl, U. Hagemann, M. Liebe, M. Sommer, and J. Augustin
Impact of energy maize cultivation and erosion on carbon gas exchange and soil organic carbon budgets in young moraine landscapes
- XY595 EGU2012-8585
M. Camino Serrano, I. Janssens, S. Luyssaert, P. Ciais, and B. Gielen
Factors influencing DOC leaching from terrestrial ecosystems: a database analysis
- XY596 EGU2012-14481
Y. Yang
A large carbon source from soil carbonates: evidence from China's grasslands
- XY597 EGU2012-5529
L. Ramirez-Lopez, B. van Wesemael, A. Stevens, S. Doetterl, K. Van Oost, T. Behrens, and K. Schmidt
Integrating depth functions and hyper-scale terrain analysis for 3D soil organic carbon modeling in agricultural fields at regional scale
- XY598 EGU2012-7596
C. Noon, A. Stevens, and B. van Wesemael
Visible and near infrared reflectance spectroscopy as a tool to monitor in situ soil organic carbon content.
- XY599 EGU2012-9130
D. de Brogniez, B. van Wesemael, R.J.A. Jones, R. Hiederer, O. Dewitte, G. Toth, and L. Montanarella
Measurement-based review of the land use/cover components of soil organic carbon estimates for Europe
- XY600 EGU2012-7337
M. Zech, C. Hörold, K. Leiber-Sauheitl, A. Hemp, and W. Zech
Buried black soils surrounding the white roof of Africa as regional carbon storage hotspot
- XY601 EGU2012-11197
M.A. Muñoz, A Faz, and **R Zornoza**
Soil organic matter stabilization in grazing highland soils from the Andean Plateau
- XY602 EGU2012-5599
B. Pichler, C. Alewell, C. Kneisel, K. Meusburger, and M. Egli
Effect of permafrost on the formation of organic carbon pools and their physical-chemical properties in the Eastern Swiss Alps
- XY603 EGU2012-8529
C. Göll and S. Er?ahin
Assessment of Organic Matter Content in Highland Forest Soils in Central Anatolia of Turkey

BG3.1 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery – Orals

Convener: C. P. Slomp | Co-Conveners: J. Middelburg, A. Boetius

Room: 23

Chairperson: Caroline Slomp

- 08:30–08:45 EGU2012-10421
S. Lefort, Y. Gratton, A. Mucci, I. Dadou, and D. Gilbert
 Hypoxia in the bottom water of the St. Lawrence Estuary: Is this ecosystem on borrowed time?
- 08:45–09:00 EGU2012-6045
C. Berg, V. Vandieken, B. Thamdrup, and K. Jürgens
 Significance of archaeal nitrification in hypoxic waters of the Baltic Sea
- 09:00–09:15 EGU2012-5690
G.L. Jessen, A. Lichtschlag, D. Donis, F. Wenzhöfer, C.J. Schubert, A. Ramette, and A. Boetius
 Changes in microbial community structure under variable oxygen conditions at the Crimean shelf (Black Sea)
- 09:15–09:30 EGU2012-7041
S. Schimanke and H.E.M. Meier
 Past and future changes of hypoxia in the Baltic Sea simulated with a Regional Climate Model
- 09:30–09:45 EGU2012-12547
T. Jilbert, C. P. Slomp, and D. J. Conley
 Phosphorus dynamics and productivity during modern and past intervals of coastal hypoxia
- 09:45–10:00 EGU2012-9350
S. Sommer, L. Bohlen, A.W. Dale, K. Wallmann, A. Noffke, C. Hensen, T. Mosch, and O. Pfannkuche
 Nitrogen cycling across the Peruvian oxygen minimum zone surface sediments

BG3.1 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery – Posters

Convener: C. P. Slomp | Co-Conveners: J. Middelburg, A. Boetius

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Caroline Slomp

- BG51 EGU2012-5071
J. Karstensen, B. Fiedler, P. Brandt, A. Körtzinger, R. Zantopp, D. Wallace, G. Krahmann, M. Visbeck, and J. Hahn
 Severe dead-zone eddies in the open North Atlantic Ocean
- BG52 EGU2012-11447
M. Holtappels, F. Janssen, A. Lichtschlag, J. Fischer, F. Wenzhöfer, A. Boetius, and M. Kuypers
 Highly dynamic oxygen conditions and increased denitrification in Crimean Shelf sediments (Black Sea)
- BG53 EGU2012-1881
Y. He, E. Stanev, and J. Staneva
 Black Sea Biochemistry: Variability of Suboxic Zone as seen in continuous observations and 3D Numerical Simulations
- BG54 EGU2012-9869
A. Noffke, S. Sommer, A.W. Dale, V. Bertics, and O. Pfannkuche
 Internal nutrient loading of ammonium and phosphorus across the benthic boundary layer of the oxic to anoxic Gotland Basin (Baltic Sea)
- BG55 EGU2012-12678
C. P. Slomp, T. Jilbert, K.P.G.L. van Riel, H.P. Mort, D.J. Conley, and B.G. Gustafsson
 Sediment trace metals as a recorder of bottom water redox conditions in the Baltic Sea over the Holocene
- BG56 EGU2012-7330
A. Stigebrandt, D. Hansson, and B. Liljebladh
 Minimum oxygen concentrations in the deepwater of enclosed stratified marine basins of arbitrary hypsography as determined by organic loading and vertical mixing and their dependences on atmospheric and marine boundary conditions
- BG57 EGU2012-390
V.N.L. Wong, S.G. Johnston, E.D. Burton, R.T. Bush, L.A. Sullivan, and P.G. Slavich
 Episodic estuarine hypoxic events: integrating the biogeochemistry, hydrology and climate on a sub-tropical floodplain, eastern Australia
- BG58 EGU2012-455
B. Y. Queste, L. Fernand, T. D. Jickells, and K. J. Heywood
 Spatial extent and historical context of North Sea oxygen depletion in August 2010
- BG59 EGU2012-7629
 D. Langlet, E. Geslin, E. Metzger, B. Riedel, M. Stachowitsch, M. Zuschin, C. Baal, and **F. Jorissen**
 Foraminiferal response to long-term anoxia: In situ experiment in the Gulf of Trieste (Northern Adriatic Sea)
- BG60 EGU2012-4490
P. Kraal, R. T. Bush, E. D. Burton, and M. D. Cheetham
 Physical and chemical drivers of iron, phosphorus and sulfur cycling in a eutrophied shallow estuary

- BG61 EGU2012-4796
K. Oguri, T. Toyofuku, C. Fontanier, R. Schiebel, L.J. de Nooier, K. Koho, G.J. Reichart, and H. Kitazato
 Oxygen concentration profiles and the consumption rates at the sediment-water interface off Hachinohe, Northeastern Japan.
- BG62 EGU2012-4652
A. Pavlidou, I. Hatzianestis, and R. Psillidou-Giouranovits
 Dissolved Oxygen decrease near the bottom of the Inner Saronikos Gulf affected by the Athens Sewage Outfall
- BG63 EGU2012-12509
A. Dreier, L. Stannek, M. Blumenberg, M. Taviani, M. Sigovini, C. Wrede, V. Thiel, and M. Hoppert
 Isotopic fingerprints of bacterial chemosymbiosis in the bivalve *Loripes lacteus*

BG3.2 – Biogeochemistry of coastal seas and continental shelves (including Arne Richter Award for Outstanding Young Scientists Lecture) – Orals

Convener: H. Thomas | Co-Conveners: A. V. Borges

Room: 23

Chairperson: Alberto V. Borges

- 10:30–10:45 EGU2012-14257
B. Knoppers, P.R.P. Medeiros, W.F.L. de Souza, E.N. Oliveira, L.C. da S. Fontes, M.S. do Carmo, I.S. Carvalho, M.C. Silva, N. Brandini, and M.E. Carneiro
 A review on the patterns of river material fluxes, coastal plume dispersal, shelf sediment facies, and anthropogenic impacts of the Tropical Land-Sea Interface, Sergipe/Alagoas, Northeast Brazil
- 10:45–11:00 EGU2012-191
H Biswas, D Bandyopadhyay, and P.P Kumar
 Phytoplankton copper requirement under iron limited condition in the coastal Bay of Bengal
- 11:00–11:15 EGU2012-9224
C. Krahforst, R. Hannigan, and E. Gallagher
 Factor analytic geochemistry models of silver and other trace metals in North Atlantic coastal waters
- 11:15–11:30 EGU2012-1088
J. Hauck, K.R. Arrigo, M. Hoppema, G.L. van Dijken, C. Völker, and D.A. Wolf-Gladrow
 Dissolution of Antarctic shelf carbonates: an insignificant feedback to acidification
- 11:30–11:45 EGU2012-742
E.T. Jørgensen, L.L. Sørensen, B. Jensen, and M.K. Sejr
 In situ evaluation of air-sea CO₂ gas transfer velocity in an inner estuary using eddy covariance - with a special focus on the importance of using reliable CO₂-fluxes
- 11:45–12:00 EGU2012-5247
L. Salt, H. Thomas, A.E.F. Prowe, A.V. Borges, and H.J.W. de Baar
 Variability of shelf sea pH and surface water CO₂ in response to North Atlantic Oscillation forcing
- 12:00–12:30 EGU2012-14450
S. Henson, R. Sanders, E. Madsen, F. Le Moigne, and G. Quartly
 Global patterns of organic carbon export and sequestration in the ocean (Arne Richter Award for Outstanding Young Scientists)

BG3.2 – Biogeochemistry of coastal seas and continental shelves (including Arne Richter Award for Outstanding Young Scientists Lecture) – Posters

Convener: H. Thomas | Co-Conveners: A. V. Borges

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Alberto V. Borges

- BG64 EGU2012-1078
H. Wang and D Han
 The Levels and Distribution of TN, TP and TOC in the South China Sea
- BG65 EGU2012-8950
T. Tesi, L. Langone, M. Giani, M. Ravaioli, and S. Miserocchi
 Fluxes and burial of particulate organic carbon along the Adriatic mud-wedge (Mediterranean Sea)
- BG66 EGU2012-5950
M. Gröger, E. Maier-Reimer, U. Mikolajewicz, and D. Sein
 NW European shelf productivity under climate warming: Implications for shelf carbon absorption
- BG67 EGU2012-4622
N. Gypens, E. Delhez, P. Passy, and C. Lancelot
 Modelling phytoplankton successions and nutrient transfers along the Scheldt estuary (Belgium, The Netherlands)

- BG68 EGU2012-5197
H. Thomas, S. Craig, B.J.W. Greenan, W. Burt, G.J. Herndl, S. Higginson, L. Salt, E.H. Shadwick, and J. Urrego-Blanco
 Seasonal controls of the short term variability of pCO₂ at the Scotian Shelf
- BG69 EGU2012-7391
 W. Champenois and **A. V. Borges**
 Seasonal and inter-annual variations of community metabolism rates of a *Posidonia oceanica* seagrass meadow
- BG70 EGU2012-7425
A. V. Borges, K. Ruddick, and J. Harlay
 Estimating pCO₂ from remote sensing in the Belgian Coastal Zone
- BG71 EGU2012-8502
L. Dzierzbicka-Glowacka, M. Janecki, A. Lemieszek, J. Jakacki, and A. Nowicki
 Population dynamics of a dominant species (*Pseudocalanus*, *Acartia* and *Temora*) in the Gulf of Gdansk (southern Baltic Sea)
- BG72 EGU2012-8579
M. Janecki, L. Dzierzbicka-Glowacka, J. Jakacki, and A. Nowicki
 Ice-ocean-ecosystem operational model of the Baltic Sea
- BG73 EGU2012-9998
G. G. Laruelle, H. H. Dürr, J. Hartmann, R. Lauerwald, C. P. Slomp, and P. A. G. Regnier
 Multi-scale segmentation of continental and coastal waters and application to the global carbon budget.
- BG74 EGU2012-10577
 F. Chiarini, L. Capotondi, **T. Tesi**, F. Giglio, L. Langone, and M. Ravaioli
 Inter-annual variability of biogenic and mass fluxes in the northern Joides Basin (Ross Sea - Antarctica)
- BG75 EGU2012-11029
F. Schwichtenberg, J. Pätsch, I. Lorkowski, T. Amann, V. Winde, M. Schartau, H. Thomas, O. Dellwig, J. van Beusekom, J. Hartmann, and M. Böttcher
 Impact of internal and external alkalinity fluxes on the carbonate system of the larger German Bight

CL5.7/AS4.22/BG6.4/GM2.6 – Instrumental monitoring of caves: the key to understanding anthropogenic impacts and climate-proxy relationships in speleothems (co-organized) – Orals

Convener: D. Matthey | Co-Conveners: C. Spötl, J. Baldini

Room: 16

Chairperson: James Baldini

- 15:30–15:45 EGU2012-5830
F. Bourges, D. Genty, P. Genthon, A. Mangin, and D. D'Hulst
 South-France caves monitoring : present day cave air dynamics characterization, paleoclimatic and archaeological interests
- 15:45–16:00 EGU2012-13481
 J.L. Banner, **E.W. James**, D. Breecker, R. Casteel, C. Wong, K. Meyer, W. Feng, and B. Cowan
 Long-term cave monitoring on the Edwards Plateau of Texas (USA) to advance speleothem paleoclimate proxies
- 16:00–16:15 EGU2012-12117
P. Aliaga and J.P. Bernal
 In-situ REE calibration as palaeohydrogeological proxies in stalagmites
- 16:15–16:30 EGU2012-6704
D.M. Tremaine, B.P. Kilgore, and P.N. Froelich
 Calcite Farming at Hollow Ridge Cave: Calibrating Net Rainfall and Cave Microclimate to Dripwater and Calcite Chemical Variability
- 16:30–16:45 EGU2012-11697
T. Atkinson, D. Matthey, J-P. Latin, M. Ainsworth, and R. Durell
 Generation and dispersal of carbon dioxide in the caves and karst of Gibraltar
- 16:45–17:00 EGU2012-10502
M. Luetscher and P.-Y. Jeannin
 Monitoring cave drips in a (partly) controlled hydrological system, Milandre cave, Switzerland

CL5.7/AS4.22/BG6.4/GM2.6 – Instrumental monitoring of caves: the key to understanding anthropogenic impacts and climate-proxy relationships in speleothems (co-organized) – Posters

Convener: D. Matthey | Co-Conveners: C. Spötl, J. Baldini

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christoph Spötl

- Z150 EGU2012-831
E. Garcia-Anton, S. Cuezva, A. Fernandez-Cortes, S. Sanchez-Moral, and J.C. Canaveras
Multiparametric surveillance of conservation measures at subterranean rock-art sites: case of Altamira cave
- Z151 EGU2012-874
S Sanchez-Moral, A Fernandez-Cortes, S Cuezva, E Garcia-Anton, and D Benavente
Balance of pCO₂ in the carbonate-bearing unsaturated zone controlling mineral precipitation: Implications for geo-environmental analyses in caves
- Z152 EGU2012-4775
S. Riechelmann, A. Schröder-Ritzrau, C. Spötl, D.F.C. Riechelmann, D.K. Richter, and A. Immenhauser
Water chemistry and isotope data from a five year monitoring programme of Bunker Cave, NW Germany
- Z153 EGU2012-13546
D. Matthey
Continuous multichannel monitoring of cave air carbon dioxide using a pumped non-dispersive infrared analyser
- Z154 EGU2012-861
A. Fernandez-Cortes, S Cuezva, M Garcia-Anton, M Alvarez-Gallego, JC Canaveras, E Porca, V Jurado, C Saiz-Jimenez, and S Sanchez-Moral
Assessment of aerodynamic processes on subsurface in karst terrains by rapid multi-parametric surveys (case of Castanar Cave, Spain)
- Z155 EGU2012-4209
S.F.M. Breitenbach, M.-J. Gilbert, O. Kwiecien, R. Seifert, and D. Fleitmann
Monitoring drip water isotope and element variability: A new device for automatic drip water collection
- Z156 EGU2012-4859
E. Garcia-Anton, S. Cuezva, A. Fernandez-Cortes, S. Sanchez-Moral, and D. Benavente
Daily variations of CO₂, d13CO₂ and CH₄ of cave air controlled by external weather conditions: example of rapid survey in Altamira cave (north of Spain)
- Z157 EGU2012-6118
D. Tapete, F. Fratini, B. Mazzei, M. Camaiti, E. Cantisani, C. Riminesi, R. Manganeli Del Fà, O. Cuzman, and P. Tiano
Calcium carbonate crystallizations on hypogean mural paintings: a pilot study of monitoring and diagnostics in Roman catacombs
- Z158 EGU2012-7910
M. Gasiorowski and H. Hercman
Monitoring of cave air temperature and humidity in the Niedzwiedzia Cave system (Sudetes, Poland) - a key to understanding tourists activity impact to cave environment
- Z159 EGU2012-9604
J.U.L. Baldini and C.M. Sherwin
Using high-resolution monitoring data to identify the effects of cave and surface conditions on cave drip water hydrochemistry
- Z160 EGU2012-10646
H. Ridley, J.U.L Baldini, and K.M Prufer
Monitoring tropical cave environmental parameters: Implications for palaeoclimate reconstruction
- Z161 EGU2012-10680
D. Ballesteros, M. Jiménez-Sánchez, J. García-Sansegundo, M. Borreguero, and G. Sendra
Quantitatively structural control of the karst based on speleological cave survey data: Cabeza Llerosos massif (Picos de Europa, Spain)
- Z162 EGU2012-11195
R. Kirk, D. Matthey, and C. Collister
Characteristics of annual laminae in speleothem from Grotte de Rolande, SW France and relationships to seasonal changes in the cave and surface environment.
- Z163 EGU2012-11463
C. Thrush, D. Matthey, D. Lowry, D. Hoffmann, and E. Anton-Garcia
Deciphering ENSO periodicity in an annually resolved speleothem from Fiji
- Z164 EGU2012-11604
D. Scholz, M. Hansen, and W. Dreybrodt
Stable carbon and oxygen isotope fractionation processes during speleothem growth: systematic investigation in novel laboratory experiments

BG7.1 – Methane cycling in marine and terrestrial systems/ES0902 Pergamon COST ACTION – Orals

Convener: A. Stadnitskaia | Co-Conveners: T Feseker, H. Niemann

Room: 23

Chairperson: Helge Niemann

- 13:30–13:45 EGU2012-4082
J. Mienert, A. Rajan, and S. Buenz
 Polar North Atlantic Margins Methane Pathway and Seabed Gas Expulsion Systems
- 13:45–14:00 EGU2012-2689
J. Greinert, M. Veloso, J. Mienert, S. Sommer, I. Bussmann, and H. Haren
 Methane release from seeps offshore W-Svalbard: Considerations to extrapolate fluxes into the water/atmosphere
- 14:00–14:15 EGU2012-3877
N. Shakhova and I. Semiletov
 Methane release from the East-Siberian Arctic Shelf and its connection with permafrost and hydrate destabilization: First results and potential future developments
- 14:15–14:30 EGU2012-5109
G. Janicki, T. Hennig, S. Schlüter, and G. Deerberg
 Simulation of submarine gas hydrate deposits as a sustainable energy source and CO₂ storage
- 14:30–14:45 EGU2012-13003
S. J. Hunter, D. Goldobin, A. Haywood, A. Ridgwell, and J. Rees
 Response of the global hydrate stability zone volume and hydrate inventory to IPCC AR5 RCP future scenarios.
- 14:45–15:00 EGU2012-7384
M. Römer, H. Sahling, T. Pape, A. Bahr, T. Feseker, P. Wintersteller, and G. Bohrmann
 Intense gas bubble emissions in the Kerch seep area - A newly discovered high-flux seep site in the Black Sea
- Chairperson: Tomas Feseker
- 15:30–15:45 EGU2012-6095
C. Lopez-Rodriguez, A. Stadnitskaia, G.J. De Lange, F. Martínez-Ruiz, M. Comas, and J. S. Sinninghe Damsté
 Active hydrocarbon (methane) seepage at the Alboran Sea mud volcanoes indicated by specific lipid biomarkers.
- 15:45–16:00 EGU2012-7094
C. Berndmeyer, G. Jakobs, O. Schmale, V. Thiel, and M. Blumenberg
 Biosignatures indicate effective aerobic methane-consumption in the redoxcline of the central Baltic Sea (Gotland Deep)
- 16:00–16:15 EGU2012-8101
P. Pop Ristova, J. Felden, F. Wenzhöfer, A. Ramette, and A. Boetius
 Spatial variations of bacterial communities and related biogeochemical activity of cold seep sites in the Eastern Mediterranean deep sea
- 16:15–16:30 EGU2012-12396
P. Steeb, P. Linke, F. Scholz, M. Schmidt, V. Liebetrau, and T. Treude
 Anaerobic oxidation of methane in the Concepción Methane Seep Area, Chilean continental margin
- 16:30–16:45 EGU2012-11315
A. Crémière, G. Bayon, E. Ponzevera, and C. Pierre
 Geochronology and stable isotope geochemistry of cold-seep carbonates from the Sea of Marmara
- 16:45–17:00 EGU2012-13125
E. Crosson, C. Rella, and K. Cunningham
 Identification, Attribution, and Quantification of Highly Heterogeneous Methane Sources Using a Mobile Stable Isotope Analyzer

BG7.1 – Methane cycling in marine and terrestrial systems/ES0902 Pergamon COST ACTION – Posters

Convener: A. Stadnitskaia | Co-Conveners: T Feseker, H. Niemann

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Alina Stadnitskaia

- BG76 EGU2012-775
E. Dvorianchikova, A. Kizilova, I. Kravchenko, and V. Galchenko
 A novel thermophilic methane-oxidizing bacteria from thermal springs of Uzon volcano caldera, Kamchatka
- BG77 EGU2012-2197
B.-J. Ryu, J.-H. Chun, J.-J. Bahk, and D.-G. Yoo
 Characteristics of the acoustic blanking zone in the Holocene mud deposit in the continental shelf on the southeastern coast of Korea
- BG78 EGU2012-2582
S.-C. Chen, S.-K. Hsu, C.-H. Tsai, Y. Wang, S.-H. Chung, P.-C. Chen, and T.F. Yang
 Active mud volcanoes and potential gas hydrate in the near shore of SW Taiwan

- BG79 EGU2012-3913
I. Semiletov, N. Shakhova, N. Romanovskii, D. Nicolsky, O. Dudarev, V. Tumskey, D. Kosmach, V. Samarkin, E. Chuvilin, and A. Charkin
 First drilling subsea permafrost in the southeastern Laptev Sea, the East Siberian Arctic Shelf: results and challenges
- BG80 EGU2012-6518
 A. Dale, L. Haffert, E. Hütten, G. Crutchley, **J. Greinert**, H. de Haas, H. de Stigter, and J. Bialas
 Geochemical processes and fluxes at a methane gas chimney on the Hikurangi Margin (New Zealand)
- BG81 EGU2012-6619
H.-S. Kim, M. Riedel, D.-G. Yoo, G.-Y. Kim, and B.-J. Ryu
 Gas hydrate concentration assessments and seismic facies analyses in the Ulleung Basin, Korea
- BG82 EGU2012-7182
S. Mau, E. Helmke, J. Blees, and E. Damm
 Revelation of differently efficient methanotrophs in polar stratified water by a comparative application of methane oxidation methods
- BG83 EGU2012-7886
C.J. Sapart, T. Boereboom, T. Roeckmann, and J.-L. Tison
 Methane isotopic signature of gas bubbles in permafrost winter lake ice: a tool for quantifying variable oxidation levels
- BG84 EGU2012-8960
S. Roy, K. Senger, R. Noormets, and M. Hovland
 Pockmarks in the fjords of western Svalbard and their implications on gas hydrate dissociation
- BG85 EGU2012-9430
M. Adler, O. Sivan, Z. Ronen, and W. Eckert
 Controlling factors on methanogenesis in the deep sediment of Lake Kinneret
- BG86 EGU2012-10644
T. Treude, S. Krause, L. Hamdan, J. Schweers, and R. Coffin
 Decoupled anaerobic oxidation of methane and sulfate reduction within the methanogenic zone of Arctic sediments (Beaufort Sea, Alaska)?
- BG87 EGU2012-11659
C. Grall, P. Henry, Y. Thomas, B. Marsset, G. Westbrook, H. Saritas, L. Géli, L. Ruffine, S. Dupré, C. Scalabrin, J.M. Augustin, G. Cifçi, and T. Zitter
 Fluid activity within the North Anatolian Fault Zone according to 3D marine seismic data on the Sea of Marmara Western High
- BG88 EGU2012-12408
J.-H. Chun, J.-J. Bahk, and B.-J. Ryu
 Methane seeps in the seafloor related to columnar acoustic blanking zone of the Ulleung Basin, East Sea, Korea
- BG89 EGU2012-13184
 C.M. Godwin, **C.D. Markfort**, and P.J. McNamara
 Daytime chamber measurements of methane flux from a boreal wetland miss substantial emission events during evening transition that are captured by a flux tower
- BG90 EGU2012-13279
M. Scherwath, M. Heesemann, G. Spence, T. Zyla, M. Riedel, L. Thomsen, and University of Toronto
 Geophysics Group
 Multiparameter Gas Hydrate Observations from NEPTUNE Canada's Seafloor Cable
- BG91 EGU2012-14077
S. Koch, I. Dumke, J. Bialas, G. Crutchley, J. Greinert, D. Klaschen, I. Klauke, and C. Papenberg
 Multiscale Image of a Seep Structure - Takahe, Offshore New Zealand
- BG92 EGU2012-2034
L. A. Berbesi, R. di Primio, Z. Anka, and B. Horsfield
 Methane leakage during the evolution of petroleum systems in the Western Canada Sedimentary Basin and the Central Graben area of the North Sea
- BG93 EGU2012-2270
I. Bussmann, K. Carstens, and B. Heim
 Distribution of Methane in the Lena Delta and Buor Khaya Bay, Russia
- BG94 EGU2012-2378
S. Kirschke, P. Bousquet, P. Ciais, M. Saunois, J.G. Canadell, C. Le Quéré, S. Houweling and the GCP-CH4 Team
 Three decades of methane sources and sinks: budgets and variations
- BG95 EGU2012-2695
J. van Huissteden, Y. Mi, A. Gallagher, and A. Budishchev
 Ecosystem recovery: a neglected factor in greenhouse gas emission from permafrost degradation.

- BG96 EGU2012-2987
Z. Anka, **E. Rodrigues**, I. Ostanin, R. di Primio, D. Stoddart, and B. Horsfield
Release of thermogenic-methane in the Hammerfest Basin after the Last Glacial Maximum. Indications from numerical modelling and 3D seismic reflection data
- BG97 EGU2012-3718
A. Plaza-Faverola, I. Pecher, D. Klaeschen, and S. Henrys
Seismic evidence of methane cycling between deep and shallow fluid flow systems along the Hikurangi margin, New Zealand
- BG98 EGU2012-3960
L. Liu and N. Wu
Simulation of the advective methane transport and AOM in Shenhua area, the Northern South China Sea
- BG99 EGU2012-3966
Y.-G. Kim, S.-M. Lee, Y. K. Jin, B. Baranov, A. Obzhairov, A. Salomatin, and H. Shoji
Gas hydrate occurrence in shallow water at the northeastern continental slope of Sakhalin Island, Sea of Okhotsk
- BG100 EGU2012-4767
V.M. Stepanenko and N.G. Iakovlev
A model study of mechanisms of methane transfer from Arctic shelf to the atmosphere
- BG101 EGU2012-6979
S. Mau, M. B. Heintz, and D. L. Valentine
Quantification of methane loss and transport in dissolved plumes of the Santa Barbara Channel, California
- BG102 EGU2012-8756
G. Bayrakci, C. Scalabrin, I. Leblond, L. Geli, and J.-B. Tary
Monitoring of gas emission in the Marmara Sea by the combined study of the Acoustic Bubble Detector and Ocean Bottom Seismometers
- BG103 EGU2012-12144
B. Valyaev
Subsurface deposition: abnormal energetics of the activity discharges and the formation of hydrocarbon accumulations
- BG104 EGU2012-12341
M. Veloso, M. De Batist, and J. Greinert
Analysis of the spatial and temporal variability of seep occurrences and activity offshore W-Spitzbergen (Svalbard)
- BG105 EGU2012-13077
J. Felden, F. Wenzhöfer, D. Yoerger, R. Camilli, C. German, K. Olu, T. Feseker, D. de Beer, and A. Boetius
Changes of biogeochemical activities before and after significant mud displacement at the Håkon Mosby Mud Volcano (HMMV)

CL4.3 – Mediterranean Climate: from past to future (co-listed) – Orals

Convener: P. Lionello | Co-Conveners: C.M. Goodess, F. Abrantes, M. Tsimplis

Room: 16

Chairperson: C. Goodess

- 08:30–08:45 EGU2012-6637
P. Lionello, M. Gacic, G. Gomis, R. Garcia-Herrera, F. Giorgi, S. Planton, R. Trigo, A. Theocharis, M.N. Tsimplis, U. Ulbrich, and E. Xoplaki
The MedCLIVAR program and the climate of the Mediterranean region
- 08:45–09:00 **Young scientist poster presentations**
- 09:00–09:15 EGU2012-9847
M Rogerson, EJ Rohling, GR Bigg, and J Ramirez
Why does the Mediterranean Outflow vary through time?
- 09:15–09:30 EGU2012-8770
S. Alessio, C. Taricco, G. Vivaldo, and M. Ghil
Modern decrease of $\delta^{18}\text{O}$ in Mediterranean sediments over the last 150 y: anthropogenic forcing and natural variability
- 09:30–09:45 EGU2012-13625
J.-P. Savy, K.M. Yao, F. Touratier, and C Goyet
Temporal evolution of the anthropogenic CO_2 and acidification of the northwestern Mediterranean Sea, from the mid-1990s to the mid-2000s
- 09:45–10:00 EGU2012-2657
J. Llasses, G. Jordà, and D. Gomis
Optimal spatio-temporal design of an hydrographic sampling aimed to monitor climate change in the Mediterranean Sea
-

COFFEE BREAK

Chairperson: I. Bladé

- 10:30–10:45 EGU2012-1673
J. Romanski, A. Romanou, M. Bauer, and G. Tselioudis
 Atmospheric Forcing of the Eastern Mediterranean Transient by Midlatitude Cyclones
- 10:45–11:00 EGU2012-10946
 M. Gaetani and **M. Pasqui**
 A synoptic characterization of the Saharan dust transport in the Mediterranean basin
- 11:00–11:15 EGU2012-4573
K. Schepanski and P. Knippertz
 Soudano-Saharan Depressions and their Importance for Precipitation and Dust - a new Perspective on a classical synoptic Concept
- 11:15–11:30 EGU2012-3956
P. Nabat, F. Solmon, S. Somot, and M. Mallet
 Implementation of a new emitted dust size distribution in a RCM over the Mediterranean region: application to the impact of aerosols on the Mediterranean climate
- 11:30–11:45 EGU2012-8974
A. Polonsky and M. Bardin
 Variability of Mediterranean cyclonic activity associated with the NAO and AMO
- 11:45–12:00 EGU2012-5932
S. Josey
 To What Extent Do Atmospheric Modes Of Variability Determine Mediterranean Sea Surface Heat Exchange?

LUNCH BREAK

Chairperson: P. Lionello

- 13:30–13:45 EGU2012-11846
I. Bladé, B. Liebmann, D. Fortuny, and G.-J. van Oldenborgh
 The summer North Atlantic Oscillation (SNAO) in CMIP3 models and related uncertainties in precipitation projections in the Euro-Mediterranean region
- 13:45–14:00 EGU2012-4034
E. Hertig, J. Jacobeit, A. Paxian, G. Vogt, S. Seubert, and H. Paeth
 Statistical assessments of extreme precipitation and dry periods in the Mediterranean area until the end of the 21st century
- 14:00–14:15 EGU2012-13623
J. A. Añel and the The Weatherathome.net Team
 Weatherathome.net: useful simulations for the Mediterranean region
- 14:15–14:30 EGU2012-194
A.-L. Lereboullet, G. Beltrando, and D.K. Bardsley
 Climate change and viticulture in Mediterranean climates: the complex response of socio-ecosystems. A comparative case study from France and Australia (1955-2040)
- 14:30–14:45 EGU2012-1836
 A.G. Koutroulis, **I.K. Tsanis**, and D. Jacob
 Projections of water resources availability in Crete for the 21st century under the global change perspective
- 14:45–15:00 EGU2012-10819
S. Somot, F. Sevault, M. Déqué, M. Herrmann, C. Dubois, R. Aznar, E. Padorno, E. Alvarez-Fanjul, G. Jorda, M. Marcos, and D. Gomis
 Regional ocean climate change scenarios for the Mediterranean Sea: assessing the uncertainties along the 21st century.
- 15:00–15:15 EGU2012-12375
C. Dubois, S. Somot, S. Calmanti, A. Carillo, M. Déqué, A. Dell'Aquila, A. Elizalde, S. Gualdi, D. Jacob, B. L'Hévéder, L. Li, P. Oddo, G. Sannino, E. Scoccimarro, and F. Sevault
 Future projections of the surface heat and water budgets of the Mediterranean Sea in an ensemble of coupled atmosphere-ocean regional climate models.

CL4.3 – Mediterranean Climate: from past to future (co-listed) – Posters

Convener: P. Lionello | Co-Conveners: C.M. Goodess, F. Abrantes, M. Tsimplis

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: P.Lionello

- Z106 EGU2012-9097
B. Wilhelm, F. Arnaud, P. Sabatier, C. Crouzet, E. Brisset, F. Guiter, J.L. Reyss, E. Chaumillon, K. Tachikawa, E. Bard, and J.J. Delannoy
 1.4 kyrs of flash flood events in the Southern European Alps: implications for extreme precipitation patterns and forcing over the north-western Mediterranean area
- Z107 EGU2012-13012
L. Vidal, A. Pothin, M. Revel, K. Tachikawa, M. Garcia, C. Sonzogni, and E. Bard
 Climate Variability in the Levant basin during the last deglaciation
- Z108 EGU2012-12500
R. Zech, M. Zech, S. Markovic, and Y. Huang
 Humid glacials, arid interglacials? Results from a multiproxy study of the loess-paleosol sequence Crvenka, Serbia
- Z109 EGU2012-234
B. Soumaya, K. Nejib, B. Franck, L. Laurent, D. Jean-Claude, C. Nicolas, and R. Hélène
 Constraints on Mg/Ca-paleothermometry in the western Mediterranean Sea
- Z110 EGU2012-4161
A. Stadnitskaia, V. Liebetrau, A. Eisenhauer, and J.S. Sinninghe Damsté
 Past methane seepage and linked deep-water anoxia are logged in methane-derived carbonates
- Z111 EGU2012-7377
O. Peyron, M. Magny, N. Combourieu-nebout, S. Goring, S. Joannin, J.-L. de Beaulieu, E. Brugapaglia, I. Dormoy, R. Drescher-schneider, D. Galop, E. Ortu, and L. Sadori
 Pollen-inferred quantitative reconstruction of the Holocene climate in the central Mediterranean area (Italy)
- Z112 EGU2012-3717
G. Jordà, J. Llasses, and D. Gomis
 Can we trust Mediterranean hydrographic data products (MEDAR, EN3, Ishii) for climate studies?
- Z113 EGU2012-751
M. Gómez, L. Gimeno, R. Nieto, A. Drumond, and L. Prieto
 Variability of the moisture sources around the Mediterranean Basin during 1980-2000
- Z114 EGU2012-1121
C.M. Goodess, M.D. Agnew, D. Hemming, C. Giannakopoulos and the CIRCE RL11 Team
 Integrated assessment in the Mediterranean: the CIRCE case studies
- Z115 EGU2012-1557
JD Ruiz Sinoga, JF Martinez Murillo, MA Gabarron Galeote, and JM Senciales Gonzalez
 Analysis of dry periods using the DDSLR index in the Mediterranean southern Spain
- Z116 EGU2012-3720
G. Jordà, M. Marcos, M. Gómez, and D. Gomis
 Wind wave climate in the Western Mediterranean under climate change scenarios
- Z117 EGU2012-2465
A. Martínez-Asensio, M. Marcos, G. Jordà, D. Gomis, and M. Gómez
 Calibration of a wind wave hindcast (1958-2008) in the Western Mediterranean using buoy data.
- Z118 EGU2012-2712
M. Tanarhte, P. Hadjinicolaou, and J. Lelieveld
 Intercomparison of temperature and precipitation datasets based on observations in the Mediterranean and the Middle-East
- Z119 EGU2012-6008
M. Stéfanon
 Dynamical effects of vegetation on the 2003 summer heat waves
- Z120 EGU2012-6166
 M. Revel, **N. Combourieu Nebout**, E. Ducassou, S. Migeon, M. Ismail, S. Bernasconi, and O. Peyron
 Temporal evolution of the Ethiopian monsoon intensity since the last 25,000 years from the Nile suspended discharges record.
- Z121 EGU2012-9538
E. Romano, E. Volpi, and F. Stefanucci
 Analysis of temperature trends, heat and cold waves in Central Italy (1952-2008)
- Z122 EGU2012-6263
P. Pereira, A. Sanchez-Lorenzo, J.-A. Lopez-Bustins, and C.-J. Lolis
 Trends in summer tropical nights on the Iberian Peninsula and their connection with large-scale atmospheric circulation patterns

- Z123 EGU2012-8804
C. Pizzigalli, P. Lionello, Ahmed Hassan Fahmi, Ghada Al-Naber, Muhammad Shatanawi, Khaldoun Shatanawi, Zohra Lili Chabaane, Mohamed Wael Hamed Al Askhar, Mohamed Magdy Abdel Wahab, and Haifa Goma Ben Mailod
 Precipitation climatology for the North African and Middle East areas of the Mediterranean Region using a collection of in situ observation
- Z124 EGU2012-6605
P. Lionello
 The climate of the Venetian and North Adriatic region: variability, trends and future change
- Z125 EGU2012-6582
 M. Reale and **P. Lionello**
 Climate change over Venetia (north-east Italy)
- Z126 EGU2012-7085
 K.M. Nissen, **U. Ulbrich**, G.C. Leckebusch, and J.G. Pinto
 Mediterranean cyclones and wind storms in a changing climate
- Z127 EGU2012-6361
 A. Bleta, **P.T. Nastos**, and A. Matzarakis
 Assessment of bioclimatic conditions in Crete Island, Greece
- Z128 EGU2012-8188
R. Marcos, M. Turco, M.C. Llasat, and P. Quintana-Seguí
 Application of a statistical downscaling method to detect inhomogeneities in a temperature time series
- Z129 EGU2012-2599
J. Kysely, L. Gaal, S. Begueria, R. Beranova, and J. I. Lopez-Moreno
 Uncertainties of climate change scenarios of precipitation extremes in the Mediterranean based on ENSEMBLES RCMs
- Z130 EGU2012-9351
M. Dubrovsky, P. Duce, B. Arca, and G. Pellizzaro
 Multi-GCM Climate Projection for the Mediterranean and Related Impact on the Forest Fire Risk (with a stress on Sardinia)
- Z131 EGU2012-11833
C.M. Gouveia, R.M. Trigo, S.M. Begueria, and S. Vicente-Serrano
 Drought influence on vegetation behavior in Mediterranean basin
- Z132 EGU2012-12272
C. Oikonomou, M. El-Maayar, and M.A. Lange
 Investigating wheat yield response to climatic extremes in the Mediterranean region under current and projected future climatic conditions
- Z133 EGU2012-4442
 H. Feidas, **P. Zanis**, D. Melas, M. Vaitis, E. Anadranistakis, P. Symeonidis, and S. Pantelopoulos
 The Geographic Climate Information System Project (GEOCLIMA): Overview and preliminary results
- Z134 EGU2012-12999
 F. Appiotti, **M. Krzelj**, F. Marincioni, and A. Russo
 Climate change effects on environment (marine, atmospheric and terrestrial) and human perception in an Italian Region (Marche) and the nearby northern Adriatic Sea.
- Z135 EGU2012-13844
 Z. Bargaoui, **Y. Tramblay**, E. Lawin, and E. Servat
 Precipitation variability and future projections for water resources management in Tunisia Northern Coastal basins

GM4.2 – Organic matter export across landscapes: Understanding the rates and controls (co-listed) – Orals

Convener: R. Hilton | Co-Conveners: M. Evans

Room: 21

Chairperson: n.n.

- 08:30–08:45 EGU2012-8834
 O. Beyssac, M. Marocchi, L. Flukiger, V. Galy, F. Herman, S. Cox, and **C.C. Chen**
 Tracing fossil particulate organic carbon from bedrocks to river and marine sediments: implications for the geological carbon cycle
- 08:45–09:00 EGU2012-2553
C. Ramos-Scharron and C. Restrepo
 The transfer of modern organic Carbon by landslide activity in tropical montane ecosystems
- 09:00–09:15 EGU2012-9396
 C. Rixen and **O. Korup**
 Soil erosion and organic carbon export by wet snow avalanches

- 09:15–09:30 EGU2012-2458
J.C. Smith, N. Hovius, A. Galy, A. Tye, and J. Turowski
 Particulate organic carbon export from soil and vegetation in temperate mountain regions
- 09:30–09:45 EGU2012-9798
F. Tamooch, F. Meysman, T. R. Marwick, A. V. Borges, R. Merckx, J. Nyunja, and S. Bouillon
 Seasonal dynamics of organic carbon in the Tana River Basin, Kenya
- 09:45–10:00 EGU2012-13331
T. Eglinton, V. Galy, X. Feng, N. Drenzek, A. Dickens, C. Ponton, L. Giosan, E. Schefuss, B. Voss, J. Vonk, O. Gustafsson, D. Montlucon, and Y. Wu
 Climate controls on the residence time of terrestrial biospheric carbon in river basins

GM4.2 – Organic matter export across landscapes: Understanding the rates and controls (co-listed) – Posters

Convener: R. Hilton | Co-Conveners: M. Evans

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL128 EGU2012-4407
 L. Lombardo, T. Vanwalleghem, and **J.A. Gomez**
 Organic carbon fluxes in stemflow, throughfall and rainfall in an olive orchard
- XL129 EGU2012-4232
J.A. Gomez, M. Burguet, M.E. Taguas, R. Perez, J.L. Ayuso, T. Vanwallgehem, J.V. Giraldez, and K. Vanderlinden
 Distribution of soil organic carbon in two small agricultural Mediterranean catchments.
- XL130 EGU2012-6510
 M. Glendell and **R.E. Brazier**
 Controls on suspended sediment, particulate and dissolved organic carbon export from two adjacent catchments with contrasting land-uses, Exmoor UK.
- XL131 EGU2012-12415
E. L. Shuttleworth, M. G. Evans, J. J. Rothwell, and S. M. Hutchinson
 Impacts of erosion and restoration on POC flux and pollutant mobilisation in the peatlands of the Peak District National Park, UK
- XL132 EGU2012-10760
M. Moreno and M. M Castillo
 Storage and transport of particulate organic matter in tropical headwater streams with different catchment land use
- XL133 EGU2012-7232
 K. Bunte, **JM Turowski**, N Federspiel, K Swingle, C Rickli, and SR Abt
 Coarse particulate organic matter transport and particle-size distribution in two mountain streams
- XL134 EGU2012-8156
J. Bouchez, V. Galy, J. Gaillardet, C. France-Lanord, R.G. Hilton, and L. Maurice
 Transport of particulate organic carbon in the Amazon River: insights from river sediment depth-profiles
- XL135 EGU2012-4584
R. G. Hilton, A. Galy, N. Hovius, S. J. Kao, M. J. Horng, and H. Chen
 Climatic and geomorphic controls on the erosion of biomass from subtropical mountain forest
- XL136 EGU2012-11086
B. M. Voss, B. Peucker-Ehrenbrink, T. I. Eglinton, and V. Galy
 Do different components of terrestrial sources contribute to the riverine suspended load?
- XL137 EGU2012-5474
G. Erkens, M. Van der Meulen, and H. Middelkoop
 The storage of carbon in Holocene deposits in the Netherlands
- XL138 EGU2012-10920
C. Goulsbra, M. Evans, and T. Allott
 Oxidation rates of overbank POC deposition in an eroding peatland
- XL139 EGU2012-12455
C. Goulsbra, M. Evans, and T. Allott
 Inferring rates of in-river POC-DOC transformation using radio carbon dating
- XL140 EGU2012-8380
S. Waldron, S. Drew, D. Gilvear, H. Murray, and K. Heal
 Advancing understanding of the fluvial export of organic matter through high-resolution profiling of dissolved organic carbon.
- XL141 EGU2012-2624
D.N. Kothawala, C.A. Stedmon, G.A. Weyhenmeyer, S. Köhler, R.A. Müller, and L.J. Tranvik
 Structure of dissolved organic matter across 500 boreal lakes analyzed by fluorescence spectroscopy

XL142 EGU2012-12546

G. Riise, D. Hongve, S. Haaland, R. Müller, and S. Sobek
Key factors determining DOM and colour in boreal forest lakes

GM4.3 – Sediment and carbon fluxes under human impact and climate changes (co-listed) – Orals

Convener: T. Hoffmann | Co-Conveners: G. Erkens, G. Verstraeten

Room: 21

Chairperson: n.n.

10:30–10:45 EGU2012-3047

S. M. Mudd and **K. Yoo**

Influence of erosion rates on particle size and carbon export from upland landscapes

10:45–11:00 EGU2012-11695

J. O. Kaplan and T. Vanwalleghe

Anthropogenic soil erosion over the Holocene: Application of a new dynamic soils module for global vegetation models

11:00–11:15 EGU2012-13834

K. Van Oost, G. Verstraeten, B. Notebaert, N. Broothaerts, S. Doetterl, and F. Wiaux

Carbon emissions as a result of land use change and accelerated soil erosion: perspectives in time & space.

11:15–11:30 EGU2012-12571

R. Aalto and A. Aufdenkampe

Episodic Emplacement of Sediment + Carbon within Large Tropical River Basins

11:30–11:45 EGU2012-7709

D. Schillereff, R. Chiverrell, J. Boyle, N. Macdonald, and J. Hooke

Brotherswater, English Lake District: a record of organic and inorganic sediment flux over the past two millennia

11:45–12:00 EGU2012-6827

R. Wasson

Delays in fluvial systems

SSS2.3 – Weathering and bioweathering: measurement techniques and implications in soil formation (co-listed) – Orals

Convener: P. ADAMO | Co-Conveners: P. López-Arce, B. VELDE, K. Zoghalmi, A. Zornoza Indart, Eric Doehne, P. Barré

Room: 6

Chairperson: Paola Adamo

15:30–16:00 EGU2012-2802

O.W. Purvis, P. Convey, M.J. Flowerdew, H.J. Peat, and J. Najorka

Lichens and weathering: importance for soil formation, nutrient cycling and adaptation to environmental change

16:00–16:15 EGU2012-2184

J. M. Arocena and B. Velde

Breakdown of Clays by Ectomycorrhizal Fungi Through Changes in Oxidation State of Iron

16:15–16:30 EGU2012-668

D.M. Freire-Lista, M.J. Varas-Muriel, and **R. Fort**

Micro-fractures produced in the Cadalso de los Vidrios granite (Madrid) subjected to Freeze-Thaw Durability Testing

16:30–16:45 EGU2012-4132

M. Dafalla and F. Al Fouzan

SEM viewing of gypsiferous material and study of their influence on electrical resistivity

16:45–17:00 EGU2012-7688

E. Doehne and **S. Pinchin**

Field measurement of erosion rates: time-lapse monitoring of rapid stone flaking at Howden Minster, UK

SSS2.3 – Weathering and bioweathering: measurement techniques and implications in soil formation (co-listed) – Posters

Convener: P. ADAMO | Co-Conveners: P. López-Arce, B. VELDE, K. Zoghalmi, A. Zornoza Indart, Eric Doehne, P. Barré

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Paula López-Arce

- XY561 EGU2012-6418
P. Barré and B. Velde
Reversibility of soil forming clay mineral reactions induced by plant - clay interactions
- XY562 EGU2012-1435
P. Adamo, V. Cozzolino, V. Di Meo, and B. Velde
Can corn plants inoculated with arbuscular mycorrhiza fungi affect soil clay assemblage?
- XY563 EGU2012-10006
A. Gontier, S. Rihs, M-P. Turpault, and F. Chabaux
Impact of vegetation change on the mobility of uranium- and thorium-series nuclides in soils
- XY564 EGU2012-13195
W.D.C. Schenkeveld, E. Oburger, Y. Schindlegger, A. Regelsberger, S. Hann, M. Puschenreiter, and S.M. Kraemer
The interaction of phytosiderophores with soil as a function of time
- XY565 EGU2012-14201
F. Terribile, S. Vingiani, and P. Adamo
The micromorphological approach to rock-lichen interactions
- XY566 EGU2012-7944
S. Vingiani, P. Adamo, and F. Terribile
Lichen-rock interaction in volcanic environments: evidences of soil-precursor formation
- XY567 EGU2012-3324
S. Giordano, S. Vingiani, and P. Adamo
Bioweathering of a basalt from Etna (Sicily) by the moss *Grimmia pulvinata* (Hedw.) Sm.
- XY568 EGU2012-2706
A.G. Caporale, M. Pigna, J.J. Dynes, V. Cozzolino, J. Zhu, and **A. Violante**
Effect of inorganic and organic ligands on the sorption/desorption of arsenate on/from Al-Mg and Fe-Mg layered double hydroxides
- XY569 EGU2012-2680
A.G. Caporale, M. Pigna, A. Sommella, V. Cozzolino, and A. Violante
Influence of compost application on arsenic uptake by beans (*Phaseolus vulgaris* L.), irrigated with arsenic-contaminated waters at four different concentrations
- XY570 EGU2012-14200
V. Ventorino, O. Pepe, L. Sannino, G. Blaiotta, and S. Palomba
Polyphasic approach to characterize heterotrophic bacteria of biofilms and patina on walls of the Suburban Bath of the Herculaneum's archaeological excavations in Italy
- XY571 EGU2012-1749
P. Lopez-Arce, A. Zornoza-Indart, M. Alvarez de Buergo, and R. Fort
Weathering: methods and techniques to measure
- XY572 EGU2012-6279
M. García-Rodríguez, J.D. Centeno Carrillo, and **M. Alvarez de Buergo**
Weathering landforms exposure and erosion phases in Pedriza de Manzanares (Spanish Central Range)
- XY573 EGU2012-1786
M. Alvarez de Buergo, R. Fort, and E.M. Perez-Monserrat
Evolution of the alteration process in time of granitic materials from Valdemorillo quarries used in built heritage, Madrid, Spain
- XY574 EGU2012-9016
M.B. Muñoz-García, P. López-Arce, M.E. Fernández-Valle, J. Dewanckele, J., J. Martín-Chivelet, R. Fort, and V. Cnudde
Weathering of speleothems: study of diagenesis with non-destructive techniques
- XY575 EGU2012-1752
A. Zornoza-Indart, P. Lopez-Arce, M. Alvarez de Buergo, and R. Fort
Computed Tomography and Nuclear Magnetic Resonance to study the internal structure and measure weathering
- XY576 EGU2012-8300
E. Doehne
Measuring change over time: the use of geotagged photographs to evaluate the weathering of monuments
- XY577 EGU2012-14055
B. Fabiola, M. Olivier, F. Houdusse, M. Fuentes, M.J.M. Garcia, J. Lévêque, J.C. Yvin, P.A. Maron, and D. Lemenager
Evaluation of the effect of an additional fertilizer on the dynamics of microbial community and the decomposition of organic matter in soil

SSS7.3 – Where does all the Pyrogenic Organic Matter go? Its Fate in Soils, Water and Sediments (co-listed) – Orals

Convener: C. Santin | Co-Conveners: J. M. De la Rosa, S. Doerr

Room: 3

Chairperson: Cristina Santín

- 08:30–08:45 EGU2012-6357
M. W. I. Schmidt, N. Singh, B. Maestrini, M. P. W. Schneider, and S. Abiven
 Where does all the fire-derived organic matter go? Do we know what we don't know (yet)?
- 08:45–09:00 EGU2012-12242
C.M.. Preston, M. Simard, and G.M. Bernard
 Some reflections on the natural history of pyrogenic C in boreal forests
- 09:00–09:15 EGU2012-908
E. Kane and W. Hockaday
 Does more intense burning in warmer, drier boreal forest create more stable black carbon in soils?
- 09:15–09:30 EGU2012-5343
M Ohlson, A E Bjune, I Kasin, and A Nordtug Wist
 Spatial variation in the charcoal pool
- 09:30–09:45 EGU2012-5975
PL Ascough, W Meredith, MI Bird, D Large, C Snape, and E Tilston
 Evaluating hydropyrolysis as a method for quantification and characterisation of Black Carbon in environmental matrices
- 09:45–10:00 EGU2012-2038
Y. Kuzyakov, I. Bogomolova, and B. Glaser
 Black carbon decomposition during 7 years and its transformation in soil estimated by ¹⁴C labeling

COFFEE BREAK

Chairperson: José María De la Rosa

- 10:30–10:45 EGU2012-830
C.A. Masiello, Z. Liu, K.L. Ziegelgruber, B. Dugan, H. Gonnermann, V.J. Chuang, and K. Zygourakis
 Density and porosity as controls on charcoal storage in soils
- 10:45–11:00 EGU2012-699
A. A. Berhe, E. Stacy, S.C. Hart, C Hunsaker, and D Johnson
 Lateral Transport of Black vs. Bulk SOM with soil erosion
- 11:00–11:15 EGU2012-2948
C. Rumpel
 Composition and dynamics of pyrogenic C depend on its physical form
- 11:15–11:30 EGU2012-198
J. Hatten, J. Warrick, M. Goni, R. Wheatcroft, G. Pasternack, A. Gray, and E. Watson
 The Role of Wildfire in the Export of Particulate and Pyrogenic Organic Carbon from a Small Mountainous River
- 11:30–11:45 EGU2012-2566
 M.M. Bisiaux, **A.C. Heyvaert**, and R. Edwards
 Distribution and Fate of Black Carbon Nanoparticles from Regional Urban Pollution and Wildfire at a Large Subalpine Lake in the Western United States
- 11:45–12:00 EGU2012-5903
T. Dittmar, C. E. Rezende, M. Manecki, J. Niggemann, A. R. Coelho Ovalle, and M. C. Bernardes
 Continuous flux of dissolved black carbon from a vanished tropical forest biome

SSS7.3 – Where does all the Pyrogenic Organic Matter go? Its Fate in Soils, Water and Sediments (co-listed) – Posters

Convenor: C. Santin | Co-Conveners: J. M. De la Rosa, S. Doerr

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY619 EGU2012-9913
L. Sánchez-García, I. Cato, and Ö. Gustafsson
 The sequestration sink of soot black carbon in the Northern European Shelf sediments
- XY620 EGU2012-13741
C Licata and R Sanford
 Soil total and charcoal carbon from mountain shrublands to subalpine forests in the Colorado Front Range
- XY621 EGU2012-1022
N.A. Vasilyeva and C. Chenu
 Century scale char and non-char C co-stabilization in soil free C fractions

- XY622 EGU2012-468
C. Santin, S.H. Doerr, R.A. Shakesby, R. Bryant, G.J. Sheridan, P.N.J. Lane, H.G. Smith, and T.L. Bell
Pyrogenic carbon in wildfire ash: characteristics and potential as C sink
- XY623 EGU2012-7729
S. Fernández, P. Roces, C. Recondo, and C. Santin
Ortophoto and satellite imagery to monitoring biochar in mountain soils (NW of Cantabrian Range, Spain)
- XY624 EGU2012-3802
L.N. Soucemarianadin, M.D. MacKenzie, R.E. Wasylshen, and S.A. Quideau
Influence of the forming conditions on Black Carbon properties
- XY625 EGU2012-2762
T. Maxfield
Mechanisms of biochar stability and functionality
- XY626 EGU2012-13915
W.C Hockaday and C.A Masiello
The aromatic domains in charcoal are small: Implications for the fate and transport of pyrogenic carbon
- XY627 EGU2012-14259
C Santin and SH Doerr
Quantifying pyrogenic carbon: don't miss the big bits?
- XY628 EGU2012-14260
R Bryant, **SH Doerr**, and C Santin
Black Carbon Production in Open Biomass Combustion
- XY629 EGU2012-13523
G. Almendros, Z. Hernández, F.J. González-Vila, J. Sanz, J.M. De la Rosa, and **H. Knicker**
Analysis of carbon forms in chemically-modified peat humic acids by partial least squares regression analysis of solid-state nuclear magnetic resonance spectra
- XY630 EGU2012-4893
H. Knicker, F.J. González Vila, and L. Clemente Salas
Biochemical resistance of pyrogenic organic matter in fire-affected mineral soils of Southern Europe
- XY631 EGU2012-264
J. M. De la Rosa and H Knicker
Fast effects of biochar amendment on soil C and N dynamics, nutrient availability and fertility under controlled conditions
- XY632 EGU2012-2644
N. Singh, S. Abiven, B. Maestrini, J.A. Bird, E.L. Eoin, M.S. Torn, and M.W.I. Schmidt
Changes in biogeochemistry of pyrogenic carbon in soil after one year
- XY633 EGU2012-2777
B. Maestrini, S Abiven, N Singh, J. Bird, M. S. Torn, and M.W.I. Schmidt
Pyrogenic carbon loss pathways under natural and increased N deposition and its priming effect on soil organic matter
- XY634 EGU2012-9971
M.E. Varela, S.R. Faria, **I. Campos**, M.M.P.F. Caria, R.S.V. Ferreira, A.I. Machado, M.A.S. Martins, R. Pinto, S.A. Prats, V.I. Esteves, and J.J. Keizer
Effects of wildfire on soil organic carbon export by runoff in Central Portugal
- XY635 EGU2012-1113
F. Worrall and **GD Clay**
Prescribed burning as a natural, long-term experiment in biochar addition - Can prescribed burns contribute to carbon storage in peat soils?
- XY636 EGU2012-8712
G. Almendros, F.J. González-Vila, J.A. González-Pérez, H. Knicker, **J.M. De la Rosa**, C. Dettweiler, and Z. Hernández
On the structural factors of soil humic matter related to soil water repellence in fire-affected soils
- XY637 EGU2012-14331
A. Cerdá, F. González Peñaloza, C. Santín, and S.H. Doerr
Land abandonment, fire recurrence and soil carbon content in the Macizo del Caroig, Eastern Spain
- XY638 EGU2012-14086
R. Menéndez-Duarte, S. Fernández, C. Santin, L. Gaspar, and A. Navas
Wildfire effects on C stocks in mountain soils

Thursday, 26 April

BG1.7 – Terrestrial organic matter dynamics during land-ocean transport in the Arctic. – Orals

Convener: J. E. Vonk | Co-Conveners: V. Alling, P. J. Mann

Room: 24

Chairperson: P. J. Mann & J. E. Vonk

- 15:30–15:45 EGU2012-3206
D.A. Hansell and R.T. Letscher
 The surface Arctic Ocean: A dynamic reservoir of terrigenous dissolved organic carbon
- 15:45–16:00 EGU2012-4237
V.V. Gordeev
 Seasonal and multi-annual variations of the North Dvina river input into the White Sea (Russia)
- 16:00–16:15 EGU2012-10122
L. Sánchez-García, J.E. Vonk, V. Alling, B. Van Dongen, A. Charkin, D. Kosmach, O. Dudarev, I. Semiletov, and Ö. Gustafsson
 Molecular, isotopic and gas-flux investigations of thaw-eroding reliefs of the Arctic Coastal-Ice complex in three different systems of the East Siberian Arctic Shelf
- 16:15–16:30 EGU2012-3212
R. Striegl, G. Aiken, D. Butman, M. Dornblaser, P. Raymond, P. Schuster, R. Spencer, A. Stubbins, and K. Wickland
 Seasonal Variability and Chemical Composition of Carbon Export by the Yukon River, Alaska
- 16:30–16:45 EGU2012-13072
C. W. Mueller, S. Loepmann, C. Hoeschen, J. Kao-Kniffin, and J. Bockheim
 Organic matter stabilization in Cryosols of Northern Alaska - a combined NMR and NanoSIMS study
- 16:45–17:00 EGU2012-6924
A. V. Vähätalo, H. Aarnos, E. M. Paolucci, D. E. Musibono, S. R. Khan, Y. Gelinas, A. Shantz, Q. Huang, W. Schneider, C. E. Rezende, E. Petrescu, and H. E. Reader
 Photochemical and microbial transformation of terrestrial dissolved organic matter - Lena River vs. rivers in mid and low latitudes

BG1.7 – Terrestrial organic matter dynamics during land-ocean transport in the Arctic. – Posters

Convener: J. E. Vonk | Co-Conveners: V. Alling, P. J. Mann

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: P. J. Mann & J. E. Vonk

- BG1 EGU2012-5972
E. Karlsson, A. Charkin, O. Dudarev, I. Semiletov, J.E. Vonk, L. Sánchez-García, A. Andersson, and Ö. Gustafsson
 Carbon isotopes and lipid biomarker investigation of sources, transport and degradation of terrestrial organic matter in the Buor-Khaya Bay, SE Laptev Sea
- BG2 EGU2012-11054
E. Karlsson, V. Brüchert, A. Charkin, O. Dudarev, I. Semiletov, and Ö. Gustafsson
 Combined molecular biomarker - microbial incubation approach to investigate organic matter mineralization in the East Siberian Shelf Sea sediments
- BG3 EGU2012-6587
K.M. Schreiner, T.S. Bianchi, M.A. Allison, A.J. Miller, and F. Marcantonio
 Changes in Terrestrial Organic Carbon Delivery to the Colville River Delta and Adjacent Simpson's Lagoon Over the Late Holocene
- BG4 EGU2012-10536
 M.R. Oosterwoud, **S.E.A.T.M. van der Zee**, J.C.L. Meeussen, and E.J.M. Temminghoff
 Master function for the solid:solution equilibrium of DOC in taiga and tundra soils of N. Russia: experimental and modeling results
- BG5 EGU2012-9551
P J Mann, R M Spencer, P J Hernes, S E Tank, R Striegl, R Y Dyda, B J Peterson, J W McClelland, and R M Holmes
 Dissolved Organic Matter Land-Ocean Linkages in the Arctic
- BG6 EGU2012-9444
P J Mann, W Sobczak, J E Vonk, A Davydova, J Schade, E Bulygina, S Davydov, N Zimov, and R M Holmes
 Enzymatic regulation of organic matter metabolism in Siberia's Kolyma River Watershed

- BG7 EGU2012-8971
V. Alling, **L. Sanchez-García**, S. Pugach, D. Porcelli, C. Humborg, C.-M. Mörrth, B. van Dongen, O. Dudarev, I. Semiletov, and Ö. Gustafsson
Extensive degradation of terrestrial POC and DOC over the Eastern Arctic Siberian Shelf
- BG8 EGU2012-7268
Ö. Gustafsson and G. Destouni
On the use of Arctic rivers as integrators of water and carbon release from permafrost thawing
- BG9 EGU2012-1370
M.A. Granskog, C.A. Stedmon, P.A. Dodd, R.M.W. Amon, A. K. Pavlov, L. de Steur, and E. Hansen
Fate of terrestrial colored dissolved organic matter (CDOM) in the Arctic Ocean: exported or removed?
- BG10 EGU2012-8533
J. E. Vonk, P. J. Mann, S. Davydov, A. Davydova, W. V. Sobczak, J. Schade, E. Bulygina, S. Zimov, R. G. M. Spencer, T. I. Eglinton, and R. M. Holmes
High reactivity of ancient permafrost carbon upon hydrological release
- BG11 EGU2012-11878
C. G. Griffin, J. W. McClelland, **J. E. Vonk**, R. M. Holmes, and K. E. Frey
Chromophoric dissolved organic matter during the Mackenzie River spring freshet: Observations and freeze-thaw experiments
- BG12 EGU2012-8375
J. E. Vonk, L. Sánchez-García, B. E. van Dongen, V. Alling, D. Kosmach, A. Charkin, I. P. Semiletov, O. V. Dudarev, N. Shakhova, P. Roos, T. I. Eglinton, A. Andersson, and Ö. Gustafsson
Remobilization of old carbon from coastal and subsea permafrost in the Siberian Arctic
- BG13 EGU2012-8610
V. Alling, D. Porcelli, C.-M. Mörrth, L. G. Anderson, L. Sanchez-Garcia, Ö. Gustafsson, P. S. Andersson, and C. Humborg
Degradation of terrestrial organic carbon, primary production and out-gassing of CO₂ along the Laptev and East Siberian Seas as inferred from $\delta^{13}\text{C}$ values of DIC
- BG14 EGU2012-6376
G. Mollenhauer, S. Kusch, and J. Rethemeyer
Characterizing the export of fossil carbon from permafrost soils of Spitsbergen using compound-specific radiocarbon dating
- BG15 EGU2012-2114
M. Manecki, D. Herlemann, F. Pollehne, M. Labrenz, R. Zimmermann, T. Dittmar, D. Schulz-Bull, and K. Jürgens
Microbial decomposition of terrigenous organic matter discharged into the Baltic Sea
- BG16 EGU2012-12287
M. Winterfeld, R. Flerus, B. Koch, and G. Mollenhauer
Age distribution of permafrost soil & surface water particulate organic carbon in the Lena Delta, Siberia
- BG17 EGU2012-12248
M. Winterfeld, M. Goni, and G. Mollenhauer
Terrestrial organic matter sources and distribution along a land-ocean transect in Siberia derived from lignin phenol composition

GM4.4/BG1.8 – Biophysical processes: from biological soil crusts to macro process (co-organized) – Orals

Convener: G. J. Kidron | Co-Conveners: B. Büdel, J. Belnap, X. Li, JM Turowski, S. Rice, M. Stoffel, S. Lane

Room: 22

Chairperson: J.M. Turowski, G.J. Kidron

- 08:30–08:45 EGU2012-4215
J. Hooke
Flood disturbance and regrowth of vegetation in ephemeral channels: conditions and interactions
- 08:45–09:00 EGU2012-13555
A.C. Wilcox, P.B. Shafroth, A. Lightbody, J.C. Stella, S. Bywater-Reyes, L. Kiu, and K. Skorko
Feedbacks among Floods, Pioneer Woody Vegetation, and Channel Change in Sand-Bed Rivers: Insights from Field Studies of Controlled Flood Releases and Models
- 09:00–09:15 EGU2012-2861
C. Bilodeau, F. Gob, M.B. Albert, J. Belliard, and J.M. Baudoin
Quantification of hydromorphological alteration of water courses from regional models across the French territory for their evaluation and their ecological restoration
- 09:15–09:30 EGU2012-7961
N. Broothaerts, G. Verstraeten, B. Notebaert, C. Kasse, S. Bohncke, R. Assendelft, and J. Vandenberghe
Humans reshaped the floodplain geocology in NW Europe through intense agricultural impact

- 09:30–09:45 EGU2012-247
J. Belnap, B. Wilcox, N. Barger, J. Herrick, and M. van Soyoc
 Biological Soil Crusts Influence Hydrologic Function Differently in Various Deserts And Future Climate and Land Use will Affect These Relationships
- 09:45–10:00 EGU2012-358
M.A. Bowker, D.J. Eldridge, and F.T. Maestre
 Runoff source or sink? Biocrust hydrological function strongly depends on the relative abundance of mosses

COFFEE BREAK

Chairperson: G.J. Kidron

- 10:30–10:45 EGU2012-13225
Y. Canton, S. Chamizo, E. Rodriguez-Caballero, I. Miralles, R. Lazaro, A. Sole-Benet, and F. Domingo
 Role of Biological Soil Crusts on hydrological cycle drivers of semiarid ecosystems
- 10:45–11:00 EGU2012-5034
T. Fischer, A. Yair, and M. Veste
 Infiltration, water holding capacity and growth patterns of biological soil crusts on sand dunes under arid and temperate climates
- 11:00–11:15 EGU2012-650
R.L. Jia, X.R. Li, L.C. Liu, and Y.H. Gao
 Effects of sand burial and wind disturbances on moss soil crusts in a revegetated area of the Tennger Desert, Northern China
- 11:15–11:30 EGU2012-6898
F. Garcia-Pichel
 Microbial exopolysaccharides as determinants of geomorphological, hydrological and optical properties of soil crusts from the Precambrian till today
- 11:30–11:45 EGU2012-1182
F. T. Maestre, C. Escolar, J. L. Quero, M. Ladrón de Guevara, R. Lázaro, V. Ochoa, B. Gozalo, and M. Berdugo
 Will climate change reduce the ability of biological soil crusts to act as a carbon sink in drylands?
- 11:45–12:00 **Toward a Synthesis: Bridging the gap between micro and macro, methodological dilemmas and collaboration between life and earth scientists**

GM4.4/BG1.8 – Biophysical processes: from biological soil crusts to macro process (co-organized) – Posters

Convener: G. J. Kidron | Co-Conveners: B. Büdel, J. Belnap, X. Li, JM Turowski, S. Rice, M. Stoffel, S. Lane

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J. Belnap

- XL272 EGU2012-2187
X.R. Li, M.Z. He, X.J. Li, and R.L. Jia
 Cryptogamic communities in biological soil crusts in arid deserts of China: Diversity and their relationships to habitats in different scales
- XL273 EGU2012-2191
X.J. Li
 Effects of patchy distribution of vegetation on infiltration, runoff generation and resources redistribution in Tengger Desert, north China
- XL274 EGU2012-4142
M. Veste, A. Yair, S.-W. Breckle, and T. Littmann
 Ecohydrology of biological soil crusts in arid sand dunes - integration from the micro-scale to the landscape
- XL275 EGU2012-6372
R. Spröte, M. Veste, T. Fischer, T. Raab, O. Bens, and R. F. Hüttl
 Development of biological soil crusts and their influence on soil hydrology in the recultivation area of lignite open-cast mining district in Lower Lusatia (Germany)
- XL276 EGU2012-13058
S. Chamizo, Y. Cantón, R. Lázaro, E. Rodriguez-Caballero, and F. Domingo
 The role of biological soil crusts on soil moisture
- XL277 EGU2012-1784
F. Gil-Sotres, I Miralles, Y. Canton -Castilla, F. Domingo, M.C. Leiros, and C. Trasar-Cepeda
 Influence of biological soil crusts at different successional stages in the implantation of biogeochemical cycles in arid and semiarid zones

- XL278 EGU2012-1005
M. Delgado-Baquerizo, L. Morillas, F. Maestre, and A. Gallardo
 C, N and P ratios modulate the dominance of soil N forms, microbial N transformation processes and microbial functional diversity under biological soil crust in a semi-arid grassland.
- XL279 EGU2012-3306
M. Z. He
 Biological soil crusts are the main contributor to winter soil respiration in a temperate desert ecosystem of China
- XL280 EGU2012-9531
F. Ehrhardt, I. Bertrand, C. Joulain, C. Valentin, G. Alavoine, and O. Malam Issa
 Biological soil crusts (BSC) in the Sahelian zone. Can they impact soil C and N cycles?
- XL281 EGU2012-6607
W. Williams, B. Budel, H. Reichenberger, and N. Rose
 Endurance of Australian dry-savannah cyanobacteria regulated by extra-cellular polysaccharides - EPS and environment
- XL282 EGU2012-7768
B. Weber
 Climatically driven distribution patterns of soil crusts and their implications for climate change scenarios
- XL283 EGU2012-11040
J. Bevan, R. Alexander, and R. Lazaro-Suau
 Transplant experiments to examine the habitat exclusivity of lichen dominated soil crust communities in the El Cautivo badlands, SE Spain
- XL284 EGU2012-2220
X. Zhao, Y. Shi., C. Chen., R. Jia., and X. Li.
 The physiology mechanisms on drought tolerance and adaptation of biological soil crust moss *Bryum argenteum* and *Didymodon vinealis* in Tenger Desert
- XL285 EGU2012-4961
P. Porada and A. Kleidon
 A Process-based Model of Global Lichen Productivity
- XL286 EGU2012-948
E. Rodriguez-Caballero, P. Escribano, S. Chamizo, and Y. Canton
 Mapping biological soil crusts for understanding their functional relevance in dryland ecosystems
- XL287 EGU2012-931
M. Temina
 Distribution patterns of terricolous and saxicolous lichens in extreme desert conditions
- XL288 EGU2012-3533
I. Grishkan, E. Zaady, and G. Kidron
 Mycobiota of biological soil crusts in the Negev desert, Israel - differences on a regional and local scale
- XL289 EGU2012-416
G.J. Kidron, H.C. Monger, B. Büdel, A. Vonshak, and W. Conrod
 Runoff initiation versus runoff yield: Understanding the complexity of the hydrological effect of biological soil crusts
- XL290 EGU2012-9502
N. Bätz, S.N. Lane, A.J.A.M. Temme, and F. Lang
 Understanding the Fluvial Critical Zone
- XL291 EGU2012-3229
A. Cunnings, E.A. Johnson, and Y.E. Martin
 Riparian seed dispersal: transport and depositional processes
- XL292 EGU2012-2772
 T. Skalski, R. Kedzior, and **A. Radecki-Pawlik**
 The effect of inundation frequency on ground beetle communities in a channelized mountain stream
- XL293 EGU2012-232
P. Dieras and J.A. Constantine
 Is there a pattern to oxbow lake geomorphic evolution?
- XL294 EGU2012-5749
A. Popovici, Gh. Kucsicsa, D. Balteanu, I. Sandric, and M. Micu
 Land-use changes as uncertainties in landslide hazard assessment. An application in Vrancea Seismic Region
- XL295 EGU2012-6948
T. Hong, S.B. Bai, J. Wang, B. Thiebes, and Z.G. Zhang
 Reconstruction of landslide activity by tree-ring analysis - a case study for Jiufangshan landslide, Gansu
- XL296 EGU2012-13248
P.M. Saco and M. Moreno de las Heras
 Coevolution of Semiarid Hillslopes: Ecogeomorphologic Patterns for Varying Biotic and Abiotic Conditions

BG2.5 – Peatlands and the Carbon Cycle – Orals

Convener: G.D. Clay | Co-Conveners: F. Worrall, Dr Glatzel

Room: 24

Chairperson: Gareth Clay

08:30–09:00 EGU2012-6069

N.T. Roulet, M.B. Nilsson, and E.R. Humphreys

Peatland wetness and the inter-annual variability of net ecosystem exchange: comparison of multi-year records from two different types of northern peatlands

09:00–09:15 EGU2012-265

I. Boothroyd, F Worrall, and T Allott

How does hillslope position control carbon fluxes from peat soils?

09:15–09:30 EGU2012-2939

M. Evans, A. Stimson, T.E.H.A Allott, and N Holland

Impacts of peatland restoration on dissolved carbon loss from eroded upland peatlands in the UK

09:30–09:45 EGU2012-8032

A. Avagyan, B. Runkle, C. Knoblauch, N. Hennings, H. Haupt, B. Brockmeyer, A. Spitzky, J. Hartmann, and L. Kutzbach

Seasonal qualitative and quantitative dynamics of dissolved organic carbon in a boreal mire complex in Northwest Russia.

09:45–10:00 EGU2012-789

E. Grand-Clement, D. Luscombe, N. Le Feuvre, D. Smith, K. Anderson, and R.E. Brazier

Effects of peatland drainage on water quality: a case study of the shallow blanket bogs of Exmoor, UK

COFFEE BREAK

Chairperson: Gareth Clay

10:30–10:45 EGU2012-414

A. Burlo, M. Minke, H. Chuvashova, T. Yarmashuk, J. Augustin, A. Thiele, V. Tichonov, N. Liashchynskaya, and I. NarkevitchInfluence of biomass harvesting on fluxes of CO₂ CH₄ and N₂O for a sedge fen in south-west Belarus

10:45–11:00 EGU2012-7804

J. Järveoja, J. Laht, K. Soosaar, M. Maddison, I. Ostonen, and Ü. Mander

Mitigation of greenhouse gas emission on abandoned peatlands by growing reed canary grass

11:00–11:15 EGU2012-12236

T. Riutta, E.-S. Tuittila, and J. Laine

The role of plant functional groups in methane dynamics in a boreal fen under pristine and water level drawdown conditions

11:15–11:30 EGU2012-1010

S.R. Pangala, V. Gauci, E.R.C. Hornibrook, and D.J. Gowing

Tree-mediated methane emissions from tropical and temperate peatlands.

11:30–11:45 EGU2012-2226

S.C. Dekker, H.J. de Boer, M.J. Wassen, and M.B. Eppinga

Critical transitions in peatland development in South Florida

11:45–12:00 EGU2012-10724

Yu. V. Savinykh, N. Pedentchouk, E. V. Gulaya, and Yu. I. Preis

Holocene palaeoclimate in western Siberia based on multiproxy investigation of peat cores

BG2.5 – Peatlands and the Carbon Cycle – Posters

Convener: G.D. Clay | Co-Conveners: F. Worrall, Dr Glatzel

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Stephan Glatzel

BG18 EGU2012-335

G.D. Clay and F Worrall

Carbon stocks and carbon fluxes from a 10 year prescribed burning chronosequence on a UK blanket peat.

BG19 EGU2012-267

I Boothroyd, F Worrall, and T Allott

What are the mechanisms controlling carbon flux from peat soils across slopes?

- BG20 EGU2012-337
G.D. Clay, F Worrall, and C.A. Masiello
Oxidative ratio (OR) of UK peats
- BG21 EGU2012-704
N. Le Feuvre, I. Hartley, K. Anderson, D. Luscombe, E. Grand-Clement, D. Smith, and R. Brazier
Will blocking historical drainage ditches increase carbon sequestration in upland blanket mires of Southwest England?
- BG22 EGU2012-1111
F Fred and GD Clay
The impact of sheep grazing on the carbon balance of a peatland
- BG23 EGU2012-2988
F Koebsch, G. Jurasinski, and **S Glatzel**
Net ecosystem exchange related to different rewetting intensities of a drained coastal fen
- BG24 EGU2012-3001
S Glatzel, P. Ruiz, and G Jurasinski
Methane release from a rewetted coastal fen in Northeast Germany
- BG25 EGU2012-4756
E. Darenova and M. Pavelka
Relationship of soil CO₂ efflux and water table in the wetland
- BG26 EGU2012-10320
KH Roucoux, TR Baker, WD Gosling, E. Honorio Coronado, TD Jones, O Lahteenoja, and IT Lawson
Abrupt vegetation transitions characterise long-term Amazonian peatland development
- BG27 EGU2012-7229
O. Kiikkilä, T. Nieminen, M. Starr, and L. Ukonmaanaho
Chemical characteristics of dissolved organic matter (DOM) in relation to heavy metal concentrations in soil water from boreal peatlands after clear-cut harvesting
- BG28 EGU2012-10434
A. C. Kalia, H. Weippert, K. Käufler, N. Billen, L. Herrmann, and K. Stahr
TerraSAR-X versus Landsat 5 TM: A comparison of different sensors for estimating the present distribution of peat lands in the state of Baden- Württemberg (Germany)
- BG29 EGU2012-11259
M. Lamentowicz, A. Buttler, E.A.D. Mitchell, B. Chojnicki, S. S?owi?ska, and M. S?owi?ski
Project CLIMPEAT - Influence of global warming and drought on the carbon sequestration and biodiversity of Sphagnum peatlands
- BG30 EGU2012-13831
V. A. Stepanova, N. P. Mironycheva-Tokareva, and O. S. Pokrovsky
Biogeochemistry of carbon and related major and trace elements in peat bog soils of the middle taiga of Western Siberia (Russia).
- BG31 EGU2012-9866
S. Zubrzycki, L. Kutzbach, A. Desyatkin, and E.-M. Pfeiffer
Soil Organic Carbon Stocks in Arctic Deltaic Sediments: Investigations in the Lena River Delta.
- BG32 EGU2012-909
H. Rea, N. Ostle, S. Waldron, and J. Whitaker
Investigating the Impacts of a Wind Farm Induced Microclimate on Peatland Carbon Cycling
- BG33 EGU2012-4175
A. Armstrong, S. Waldron, N. Ostle, and J. Whitaker
Variability in the concentration and character of blanket bog pore water dissolved organic carbon
- BG34 EGU2012-2502
M. Tomasic, T. Vesala, M. Raivonen, S. Smolander, T. Hölttä, V. Brovkin, R. Schuldt, A. Valdebenito, T. Kleinen, and C. Reick
Integrating a Methane Emission Tool into the Land Component JSBACH

AS4.5/BG2.17/CL2.6 – Vegetation-Atmosphere Interactions: From Emission to Atmospheric Particles and Climate (co-organized) – Orals

Convener: B. Bonn | Co-Conveners: M. Boy, S. M. Noe

Room: 14

Chairperson: Boris Bonn, Steffen M. Noe

- 08:30–08:45 EGU2012-12992
A.M. Trowbridge, H.D. Adams, D.D. Breshears, and R.K. Monson
Untangling the primary drivers of pinyon monoterpene production and emissions under predicted drought

- 08:45–09:00 EGU2012-754
M.H.A. van Geel, K.F. Boersma, J.E. Williams, V. Huijnen, T.P.C. van Noije, J. Vilà-Guerau de Arellano, D.J. Parker, C.E. Reeves, H. Schlager, M. Lichtenstern, J.G. Murphy, G. Mills, D.E. Heard, T. Ingham, and R. Commane
 Towards a better understanding of isoprene emissions and chemistry above tropical forests with the TM5 model
- 09:00–09:15 EGU2012-4410
S. Bourtsoukidis, A. Dittmann, S. Jacobi, and B. Bonn
 Driving forces of individual BVOC emissions from a spruce tree in Central Germany; results from a dynamic enclosure study.
- 09:15–09:30 EGU2012-7949
I. Bamberger, L. Hörtnagl, T. Ruuskanen, R. Schnitzhofer, M. Müller, M. Graus, T. Karl, G. Wohlfahrt, and A. Hansel
 Deposition of terpenes to vegetation - a paradigm shift towards bidirectional VOC exchange?
- 09:30–09:45 EGU2012-847
G. Salque-moreton, Y. Liu, D. Voisin, F. Siekmann, P. Renard, A. Monod, and R. Thissen
 A HRMS study of oligomer formation through aqueous phase photooxidation of methylvinyl-ketone and methacrolein
- 09:45–10:00 EGU2012-3934
H. G. Takahashi, H.-J. Kim, K. Tanaka, K. Takata, K. Saito, and T. Yasunari
 Sensitivity study on the impacts of biogenic VOC on the Asian monsoon climate in dry and wet seasons using MIROC5

AS4.5/BG2.17/CL2.6 – Vegetation-Atmosphere Interactions: From Emission to Atmospheric Particles and Climate (co-organized) – Posters

Convener: B. Bonn | Co-Conveners: M. Boy, S. M. Noe

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 10:30–12:00

Chairperson: Steffen M. Noe, Boris Bonn

- XY56 EGU2012-8889
M. Beck and T. Hoffmann
 Formation and characterization of dimeric compounds in Secondary Organic Aerosol
- XY57 EGU2012-1073
T. Rusu, P. I. Moraru, M. L. Sopterean, A. I. Pop, and H. Căcovean
 Climate Monitoring and Recommendations on the Optimum Sowing Period for the Main Crops in the Transylvanian Plain, Romania
- XY58 EGU2012-1198
M. Li, X. Huang, J. Li, and Y. Song
 Estimation of biogenic volatile organic compound (BVOC) emissions from the terrestrial ecosystem in China using real-time remote sensing data
- XY59 EGU2012-1944
E. Chalaya, V. Slepnyh, A. Babyakin, and N. Povolotckaia
 The seasonal dynamics of bacteriostatic character of oak forests
- XY60 EGU2012-2783
B. Illes and A. Anda
 Field effects of cadmium contamination in the radiation characteristics of maize
- XY61 EGU2012-7186
J. Regnery, T. Dindorf, L. Hacker, S. Andres, E. Kleist, J. Wildt, and J. Kesselmeier
 Development and application of an analytical method for the determination of total atmospheric biogenic non-methane organic carbon
- XY62 EGU2012-8678
R. J. Jakob and T. Hoffmann
 Development of a chiral separation method for the enantiomers of two atmospheric oxidation products of α -pinene
- XY63 EGU2012-9247
M. J. D. Mann, M. Kundel, and T. Hoffmann
 Online Quantification of gaseous Amines via Aerosol Mass Spectrometry
- XY64 EGU2012-10196
P. Veres, J. Auld, and J. Williams
 Tropical Greenhouse Measurements of Volatile Organic Compounds Using Switchable Reagent Ion Proton-Transfer-Reaction Time-of-Flight Mass Spectrometry (PTR-TOF-MS)
- XY65 EGU2012-10376
M. Walser, I. Bamberger, L. Hörtnagl, G. Wohlfahrt, and A. Hansel
 Drought induced methanol emission from grassland

- XY66 EGU2012-10544
R. Kohl, **B. Bonn**, S. Bourtsoukidis, H. Wex, F. Stratmann, H. Bingemer, W. Haunold, and S. Jacobi
Aerosol and cloud condensation nuclei formation at Mt. Kleiner Feldberg, Germany
- XY67 EGU2012-2771
B. Illes and **A. Anda**
Changes in radiative properties of soot contaminated maize canopy

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Orals

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Room: 18

Chairperson: C. W. Mueller

- 08:30–08:45 EGU2012-2896
R. M. Lark
Quality measures for geostatistical prediction of log-normal soil properties.
- 08:45–09:00 EGU2012-14154
M. A. Marinho, **J. R. Raposo**, M. Valcárcel Armesto, J. Dafonte Dafonte, and A. Paz González
Characterization of Soils and Tertiary-Quaternary Sediments by Electrical Resistivity Tomography in Terra Chá, Lugo, Spain
- 09:00–09:15 EGU2012-1963
F. Cresto Aleina, V. Brovkin, S. Muster, J. Boike, L. Kutzbach, and S. Zuyev
Poisson-Voronoi Diagrams and the Polygonal Tundra
- 09:15–09:30 EGU2012-6552
A Paz González, M. Valcarcel Armesto, J. Dafonte Dafonte, J. M. Mirás Avalos, R. da Silva Días, M. A. Marinho, and C. A. de Abreu
Charactering Spatial Variability of Soil Properties Measured on a Transect by Multifractal Analysis
- 09:30–09:45 EGU2012-466
D. Gimenez and S-W Yoon
Using Entropy to Quantify Soil Structure from Water Retention and Texture Data
- 09:45–10:00 EGU2012-14184
K. Olechko, P. Patiño, and A.M. Tarquis
The number comb for a soil physical properties dynamic measurement
- 10:00–10:15 EGU2012-14209
A. Pohlmeier, S. Haber-Pohlmeier, M. Bechtold, J. Vanderborght, and H. Vereecken
Magnetic resonance imaging of slow water flow during infiltration and evaporation by tracer motion

COFFEE BREAK

Chairperson: R. M. Lark

- 10:30–10:45 EGU2012-4535
E. Inselsbacher and T. Näsholm
Microdialysis as a novel tool for in-situ monitoring of diffusive fluxes of plant-available nitrogen
- 10:45–11:00 EGU2012-8182
R. E. Falconer, G Battaia, and W Otten
A pore scale model of Soil Organic Matter (SOM) dynamics and microbial colonisation
- 11:00–11:15 EGU2012-4631
M. Leue, H.H. Gerke, and R.H. Ellerbrock
Characterization of soil organic matter composition at intact preferential flow path surfaces
- 11:15–11:30 EGU2012-8472
S. Engels, B. Marschner, and H. Zepp
Analysing soil moisture reactions to precipitation for soil moisture regionalization
- 11:30–11:45 EGU2012-13769
J. Pett-Ridge, M. Keiluweit, J. Bougoure, P.K. Weber, M. Kleber, and P. Nico
Joining NanoSIMS and STXM/NEXAFS to visualize soil biotic and abiotic processes at the nano-scale
- 11:45–12:00 EGU2012-14058
A.M. Tarquis, P.L. Gonzalez-Nieto, and **N.R.A. Bird**
3D Soil Images Structure Quantification using Relative Entropy
- 12:00–12:15 EGU2012-14183
M. Capa-Morocho, **M. Ruiz-Ramos**, S.M. Hapca, A. Houston, and A.M. Tarquis
Topology of a percolating soil pore network

BG6.2 – Calcification in marine organisms: ocean-acidification and proxy-development studies (including Vladimir Ivanovich Vernadsky Medal Lecture) – Orals

Convener: LJ de Nooijer | Co-Conveners: K. G. Schulz, G.-J. Reichart, A. Meibom

Room: 23

Chairperson: LJ de Nooijer

- 08:30–08:45 EGU2012-1070
R.H. Maneja, A.Y. Frommel, A.J. Geffen, A. Folkvord, U. Piatkowski, M.Y. Chang, and C. Clemmesen
 Effects of ocean acidification on the calcification of otoliths of larval Atlantic cod, *Gadus morhua* L.
- 08:45–09:00 EGU2012-2240
V. Saderne and M. Wahl
 Effect of Ocean acidification on growth, calcification and reproduction of calcifying and non-calcifying epibionts of brown algae
- 09:00–09:15 EGU2012-2575
L. Jonkers, P. Jimenez-Amat, and G.-J. A. Brummer
 Size-dependent seasonality of fluxes, stable isotopes and trace element composition of the planktonic foraminifera *Neogloboquadrina pachyderma* s. and *Globigerina bulloides* in the Irminger Sea
- 09:15–09:30 EGU2012-3889
J. Halfar, P. Chan, W. Adey, S. Hetzinger, B. Williams, R. Steneck, and P. Lebednik
 Century-scale variability of Coralline Algal Calcification Rates in the North Pacific and North Atlantic
- 09:30–09:45 EGU2012-4674
R. Andreson, H. Anlauf, L. Mackinder, D. Iglesias-Rodriguez, J. LaRoche, and B. Lenhard
 Transcriptome analysis of *Emiliana huxleyi* cells grown under different conditions using high-throughput sequencing data
- 09:45–10:00 EGU2012-6576
H. Poigner, D. Monien, P. Monien, M. Kriews, H.-J. Brumsack, D. Wilhelms-Dick, and D. Abele
 Element ratios between digestive gland and gill tissues of the Antarctic bivalve *Laternula elliptica* as a proxy for element uptake from different environmental sources

COFFEE BREAK

Chairperson: K Schulz

- 10:30–10:45 EGU2012-6933
T. Toyofuku, H. Nomaki, M. Tsuchiya, and H. Kitazato
 Foraminiferal cellular Calcium and pH distribution by laboratory observation
- 10:45–11:00 EGU2012-6959
S. Mau, F. J. R. Meysman, R. Schoon, A. Bissett, and D. de Beer
 Microphytobenthic induced calcification - A modelling approach
- 11:00–11:15 EGU2012-7462
C.E. Mueller, D. van Oevelen, and J. J. Middelburg
 Influence of *Eunice norvegica* on feeding and calcification in the coral *Lophelia pertusa*
- 11:15–11:30 EGU2012-7817
L.C.M. Mackinder, L.T. Bach, K.G. Schulz, G. Wheeler, D.C. Schroeder, C. Brownlee, and U. Riebesell
 Calcification and inorganic carbon uptake in the coccolithophore *Emiliana huxleyi*
- 11:30–11:45 EGU2012-8514
D.E. Jacob, R. Wirth, A.L. Soldati, and U. Wehrmeister
 Bivalves build their shells from amorphous calcium carbonate
- 11:45–12:00 EGU2012-8521
K.A Koho and G-J Reichart
 Benthic foraminiferal trace metal uptake: a field calibration from the Arabia Sea Oxygen Minimum Zone

LUNCH BREAK

Chairperson: GJ Reichart

- 13:30–13:45 EGU2012-9281
M. Y. Chang, A. J. Geffen, R. D. M. Nash, and C. Clemmesen
 The Regional Patterns of Chemical Composition in the Otolith Core of Larval Fish

- 13:45–14:00 EGU2012-11407
S. Loucaides, A Poulton, R Bellerby, and T Tyrrell
 Coccolithophore community composition and calcification rates in the Norwegian and Greenland seas as a function of carbonate chemistry and other environmental parameters.
- 14:00–15:00 EGU2012-14452
J.-P. Gattuso
 Precipitation and dissolution of calcium carbonate: key processes bridging the bio- and geosciences (Vladimir Ivanovich Vernadsky Medal Lecture)

BG6.2 – Calcification in marine organisms: ocean-acidification and proxy-development studies (including Vladimir Ivanovich Vernadsky Medal Lecture) – Posters

Convener: LJ de Nooijer | Co-Conveners: K. G. Schulz, G.-J. Reichart, A. Meibom

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: LJ de Nooijer

- BG35 EGU2012-3310
H. Stoll, L.M. Mejia-Ramirez, K. Isensee, A. Mendez-Vicente, and J. Pisonero
 Diatom biomineralization reflected in diatom B/Si
- BG36 EGU2012-3497
C. Cleroux, P. deMenocal, J. Arbuszewski, and B. Linsley
 Reconstruct the past thermocline circulation in the Atlantic: calcification depths and Mg/Ca-temperature calibrations for 6 deep-dwelling planktonic foraminifera
- BG37 EGU2012-3719
L. Jonkers, L de Nooijer, G.J. Reichart, and R. Zahn
 The effect of encrustation on the trace element composition of Neogloboquadrinadutertrei, implications for reconstructing past sea water temperature
- BG38 EGU2012-4274
F. Le Moigne, R.J. Sanders, M. Villa, A. Martin, K. Pabortsava, H. Planquette, P.J. Morris, and S.J. Thomalla
 The role of biomineral in the transport of POC from the surface ocean
- BG39 EGU2012-4340
S. Lee
 Biocatalytic CO₂ sequestration based on shell regeneration
- BG40 EGU2012-5012
F. Bagusche, S. Pouvreau, C. Trueman, S. Long, and C. Hauton
 Impacts of ocean acidification on gene expression and biomineralisation in the Pacific oyster *Crassostrea gigas* Thunberg, 1793
- BG41 EGU2012-5680
LJ de Nooijer, R Tjallingii, GJ Brummer, and GJ Reichart
 Seasonality in the Arabian Sea over glacial-interglacial cycles
- BG42 EGU2012-7505
X.L You and Q. Li
 Spheroidal dolomite texture as proxy for microbially mediated dolomite
- BG43 EGU2012-9191
 D.E. Jacob and **U. Wehrmeister**
 Evidence for variable crystallinity in bivalve shells
- BG44 EGU2012-9754
M. Hart, L. Pettit, D. Wall-Palmer, C. Smart, J. Hall-Spencer, A. Medina-Sanchez, R.M. Prol Ledesma, R. Rodolfo-Metalpa, and P. Collins
 Investigation of the calcification response of foraminifera and pteropods to high CO₂ environments in the Pleistocene, Paleogene and Cretaceous
- BG45 EGU2012-11062
M. Wall, G. M. Schmidt, S. Khokkatiwong, and C. Richter
 Coral calcification and reef development under natural disturbances
- BG46 EGU2012-11553
V. Saderne, M. Wahl, and P.M.J. Herman
 Extreme variations of pCO₂ and pH in a macrophyte meadow of the Baltic Sea in summer: evidence of the effect of photosynthesis and local upwelling.
- BG47 EGU2012-12167
W. Feldmeijer, B. Metcalfe, M. de Vringer, G.-J. Brummer, and M. Prins
 Sensing seasonality in the North Atlantic during Termination III: an Individual Specimen Analysis.
- BG48 EGU2012-12350
I.E.Y. van Dijk, L.J. de Nooijer, T. Toyofuku, and G.J. Reichart
 Species-specific impacts of temperature and seawater Mg/Ca on foraminiferal Mg/Ca

- BG49 EGU2012-12626
N. Fruchter, J. Erez, A. Eisenhauer, M. Dietzel, A. Niedermayr, J. Fietzke, and F. Boehm
 Strontium and Calcium Isotope Fractionation during Aragonite Formation - Corals versus Inorganic Precipitation
- BG50 EGU2012-11016
T.R.R. Bontognali, C. Vasconcelos, and J.A. McKenzie
 Role of Organic Acids in Bioformation of Kaolinite: Results of Laboratory Experiments

BG6.3/CL5.14/SSP5.4 – Micropaleontology: a key to modern and ancient environments (co-organized) – Orals

Convener: K. Koho | Co-Conveners: F. Jorissen, A. Sluijs, C. Fontanier

Room: 23

Chairperson: n.n.

- 15:30–15:45 EGU2012-1663
M. Mojtahid, H. Howa, J. Garcia, F. Jorissen, E. Michel, M. Cremer, F. Eynaud, H. Gillet, and S. Terrien
 High resolution Holocene record in the southeastern Bay of Biscay: use of benthic and planktic foraminifera as paleoenvironmental proxies
- 15:45–16:00 EGU2012-7732
K. Müller-Navarra, A. Lochte, and G. Schmiedl
 Benthic foraminiferal response to trophic changes across the last glacial-Holocene transition in the abyssal eastern Mediterranean Sea
- 16:00–16:15 EGU2012-3326
O. Romero and X. Crosta
 Millennial-scale variability of diatom paleoproductivity during the last 50 ka: an equator-to-subtropics comparison along western Africa
- 16:15–16:30 EGU2012-2729
P.K. Bijl, A.J.P. Houben, F. Sangiorgi, A.P.J. Ebbing, J. Pross, A. Sluijs, and H. Brinkhuis
 Eocene-Miocene dinoflagellate cyst assemblages from the Wilkes Land margin, Antarctica (IODP Leg 318): tracing greenhouse and icehouse dynamics of the Southern Ocean
- 16:30–16:45 EGU2012-12055
C. Joachim and J. Mutterlose
 Assemblage level and intraspecific response of calcareous nannofossils during early Eocene hyperthermal events.
- 16:45–17:00 EGU2012-749
A. Bercovici, V. Vajda, T. R. Lyson, S. G. B. Chester, E. J. Sargis, D. A. Pearson, and W. G. Joyce
 Terrestrial ecosystem collapse associated to the K-Pg boundary and dinosaur extinction: palynological evidences

BG7.2 – Nexus between microbes, metals and minerals in the environment (co-sponsored by the European Association of Geochemistry (EAG)) – Posters

Convener: H. Veeramani | Co-Conveners: D. S. Alessi, A. Kappler, M. Hochella, C. Schmidt, A. Meibom

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Harish Veeramani, Daniel Alessi, Andreas Kappler, Anders Meibom, Caroline Schmidt & Michael F. Hochella

- BG51 EGU2012-5673
P. Junier, G. Cailleau, G. Martin, M. Guggiari, D. Bravo, M. Clerc, M. Aragno, D. Job, and E. Verrecchia
 The oxalate-carbonate pathway: at the interface between biology and geology
- BG52 EGU2012-14382
N Qafoku
 Unraveling contaminated subsurface complex and dynamic behavior: A scale-dependent perspective
- BG53 EGU2012-828
J.P.L. Kenney, R. Olsson, R. Giesler, and P. Persson
 The effect of extracellular polysaccharides on the goethite-surface promoted hydrolysis of organophosphates.
- BG54 EGU2012-7056
C. Schmidt, K. Oswald, E.D. Melton, and A. Kappler
 Metabolic flexibility of the Fe(II)-oxidizing phototrophic strain *Rhodospseudomonas palustris* TIE1 and its potential role in microbial iron cycling
- BG55 EGU2012-9769
D. Akob, T. Bohu, A. Beyer, F. Schöffner, M. Händel, C. Johnson, D. Merten, G. Büchel, K. Totsche, and K. Küsel
 Linking Mn(II)-oxidizing bacteria to natural attenuation at a former U mining site

- BG56 EGU2012-7898
F. Schäffner, D. Merten, G. De Giudici, A. Beyer, D.M. Akob, P.C. Ricci, K. Küsel, and G. Büchel
Formation of secondary minerals in a lysimeter approach - A mineral-microbe interaction
- BG57 EGU2012-755
S M McCluskey and C W Knapp
The Effect of Heavy Metals on Antibiotic Resistance in the Environment
- BG58 EGU2012-5927
K.O. Konhauser
The Role of Bacteria in Iron Biomineralization
- BG59 EGU2012-7090
S. H Choi, K. H Cho, B. J Kim, N. C Choi, and C. Y Park
Enhancement of gold recovery using bioleaching from gold concentrate
- BG60 EGU2012-7147
S. Rothhardt, G. Gleixner, K. Benzerara, C. Fischer, and R. Gaupp
Fungal alteration of organic coatings on sand grains
- BG61 EGU2012-8402
D. W Wi, K. H Cho, B. J Kim, N. C Choi, and C. Y Park
Enhanced bioleaching on attachment of indigenous acidophilic bacteria to pyrite surface
- BG62 EGU2012-9332
S. J Oh, K. H Cho, B. J Kim, N. C Choi, and C. Y Park
A study on the selection of indigenous leaching-bacteria for effective bioleaching
- BG63 EGU2012-10224
F. Battaglia-Brunet, F. Seby, C. Crouzet, C. Joulain, Y. Mamindy-Pajany, A.G. Guezennec, C. Hurel, N. Marmier, and P. Bataillard
Bacterial activities driving arsenic speciation and solubility in marine sediments
- BG64 EGU2012-11285
K. H Cho, B. J Kim, D. W Wi, N. C Choi, and C. Y Park
Biogeochemistry on the Interrelation between AMD and Sediments under Seasonal Variations
- BG65 EGU2012-12015
H. F. Winstanley and A. C. Fowler
Modelling rate limitations on dissimilatory iron reduction
- BG66 EGU2012-13133
E.A. Polishchuk, J. Chen, V.W.M. Lai, and W.R. Cullen
Arsenic transforming genes in a low arsenic hypersaline lake in southern British Columbia, Canada.

SSP3.3 – Reconstructing redox conditions from sedimentary records – an interdisciplinary approach (sponsored by IAS) (co-listed) – Orals

Convener: C. März | Co-Conveners: P. Boening, A. Dickson

Room: 41

Chairperson: n.n.

- 13:30–13:45 EGU2012-12782
J.-P. Jenny, F. Arnaud, J.M. Dorioz, C. Giguët Covex, V. Frossard, P. Sabatier, L. Millet, J.L. Reyss, K. Tachikawa, O. Romeyer, C. Pignol, E. Mallet, and M.E. Perga
Toward a quantitative reconstruction of hypoxia from varve records in the large perialpine Lake Bourget over the last 150 years
- 13:45–14:00 EGU2012-7068
Z. Erdem, M.N. Çağatay, E. Damci, B.U. Ülgen, M. Holtappels, and A. Lichtschlag
Holocene History of the Mediterranean Inflow and Its Influence on Formation of the Channel Network Complex and Redox Conditions in the Istanbul Strait Outlet Area of the Black Sea
- 14:00–14:15 EGU2012-4639
D. Gallego-Torres, **O. Romero**, F. Martinez-Ruiz, K. Jung-Hyun, B. Donner, and M. Ortega-Huertas
Evolution of deep-water redox conditions in the NW African upwelling system during the last glacial and deglaciation: implications for the deep ocean circulation.
- 14:15–14:45 EGU2012-7169
T. W. Lyons
Improved paleoenvironmental interpretations at the intersection between paleontology and biogeochemistry
- 14:45–15:00 EGU2012-10222
A. Jimenez Berrocoso, S. Bodin, and J. Wood
Varying bottom water oxygenation during deposition of organic-rich, bioclastic carbonates on a southern Tethys ramp (lower-middle Eocene, Tunisia)

Friday, 27 April

BG1.6 – Climate extremes, ecosystems and biogeochemical cycles – Orals

Convener: M. Reichstein | Co-Conveners: M. Bahn, P. Ciais, J. Dukes, Y. Luo, L. Rustad

Room: 23

Chairperson: Bahn

- 13:30–13:45 EGU2012-2839
C. Beier
Precipitation experiments in the future - more than just water
- 13:45–14:00 EGU2012-2909
G. De Simon, G. Alberti, G. Delle Vedove, A. Peressotti, A. Zaldei, and F. Miglietta
Cropland responses to extreme winter temperature events: results from a manipulation experiment in north-eastern Italy
- 14:00–14:15 EGU2012-6186
C Picon-Cochard, A. Augusti, M Bahn, R. Hasibeder, C. Roumet, and J. Roy
Impacts of a summer extreme event on soil CO₂ fluxes in grassland in a context of future climate change
- 14:15–14:30 EGU2012-8660
O. Gavrichkova, J. Tian, M. Spohn, G. Guidolotti, G. de Dato, D. Liberati, J. Pausch, E. Brugnoli, P. De Angelis, and Y. Kuzyakov
Effects of drought on C allocation and turnover in a Mediterranean shrub community - A 13C field labeling study
- 14:30–14:45 EGU2012-3860
Y. Luo, X. Xu, R Sherry, S. Niu, D. Li, and J. Xia
Climate Extremes Triggered State Shifting of US Great Plains Prairie under Experimental Warming
- 14:45–15:00 EGU2012-2998
J. Wu, L. van der Linden, G. Lasslop, N. Carvalhais, K. Pilegaard, C. Beier, and A. Ibrom
Disentangling the effects of climate variability and functional change on ecosystem carbon dynamics using semi-empirical modelling
- Chairperson: Reichstein
- 15:30–15:45 EGU2012-12566
S.I Seneviratne, N. Nicholls, D. Easterling, C.M. Goodess, S. Kanae, J. Kossin, Y. Luo, J. Marengo, K. McInnes, M. Rahimi, M. Reichstein, A. Sorteberg, C. Vera, and X. Zhang
Changes in climate extremes and their impacts on the natural physical environment: An overview of the IPCC SREX report
- 15:45–16:00 EGU2012-13778
S. Saatchi and S. Asefi
Response of Tropical Forests to Intense Climate Variability and Rainfall Anomaly over the Last Decade
- 16:00–16:15 EGU2012-13677
P. Regnier, A. Dale, S. Arndt, I. Tsandev, and A. Ridgwell
Response of the benthic methane cycle to climate variability: insights from reaction-transport simulations
- 16:15–16:30 EGU2012-9640
D. Yakir, E. Rotenberg, F. Tatrinnov, J. Ogee, and K. Maseyk
Forest response to heat waves at the dry timberline
- 16:30–16:45 EGU2012-11742
N. Carvalhais, S. Zaehle, G.J. Schürmann, C. Beer, A. Granier, D. Loustau, D. Papale, C. Reick, and M. Reichstein
Inverse optimization of the land surface model JSBACH using multiple constraints and long term observations
- 16:45–17:00 EGU2012-5728
C. Pappas, S. Fatichi, S. Leuzinger, and P. Burlando
Evaluating assumptions and parameterization underlying process-based ecosystem models: the case of LPJ-GUESS

BG1.6 – Climate extremes, ecosystems and biogeochemical cycles – Posters

Convener: M. Reichstein | Co-Conveners: M. Bahn, P. Ciais, J. Dukes, Y. Luo, L. Rustad

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Luo

- BG1 EGU2012-2216
D. Frank, M. Reichstein, M. Bahn, C. Beer, P. Ciais, M. Mahecha, S.I. Seneviratne, P. Smith, M. van Oijen, and A. Walz
 Climate extremes and the carbon cycle - a review using an integrated approach with regional examples for forests & native ecosystems -
- BG2 EGU2012-9660
L. Batlle Bayer, B.J.J.M. van den Hurk, and B. Strengers
 A conceptual framework for regional feedbacks in a changing climate
- BG3 EGU2012-14171
N. Carvalhais, C. Beer and the CARBO-Extreme Modeling Team
 Impacts of climate variability on the European carbon cycle - a bottom-up approach from in-situ model-data-fusion to continental-scale modeling
- BG4 EGU2012-12038
B. Vieli, S.I. Seneviratne, and E.L. Davin
 Modelling response of European-scale carbon fluxes to extreme events
- BG5 EGU2012-12665
T. Kato, N. Viovy, P. Ciais, and N. Vuichard
 Response to extreme climate event over Europe by terrestrial ecosystem: experiments in repeated 2003 year's climate and in future climate with reduced monthly variability
- BG6 EGU2012-12844
M. Kuhnert, J. Hillier, J. Yeluripati, W.J. Parton, and P. Smith
 Impact of extreme events on the carbon fluxes of arable land in Europe
- BG7 EGU2012-7359
B. Badawy, C. Rödenbeck, M. Heimann, and M. Reichstein
 Quantifying Carbon Processes of the Terrestrial Biosphere in a Global Atmospheric Inversion
- BG8 EGU2012-1096
D. Kracher, C.H. Reick, and B.R. Parida
 Source and sink strengths of terrestrial biosphere for CO₂ and N₂O under future climate
- BG9 EGU2012-12202
M. Göhler, Mr Cuntz, Ms Mai, and Ms Attinger
 The use of eigendecomposition in sensitivity analysis of a complex land surface model
- BG10 EGU2012-2700
KM Keiblinger, T Schneider, S Leitner, I Hämmerle, K Riedel, and S Zechmeister-Boltenstern
 Metaproteome analysis of the microbial community during leaf litter decomposition - the impact of stoichiometry and temperature perturbations
- BG11 EGU2012-3753
T. Chen, A.J. Dolman, G.R. van der Werf, R.A.M. de Jeu, and G. Wang
 Annual coupled drought and net primary productivity over global
- BG12 EGU2012-4482
 A. Lindenthal, B. Langmann, M. Hort, **G. Hoshyaripour**, J. Paetsch, and I. Lorkowski
 Iron fertilisation of the ocean through major volcanic eruptions. A case study of the Kasatochi eruption 2008
- BG13 EGU2012-5575
M.H. Vermeulen, B. Kruijt, and P. Kabat
 Modelling short term variability in carbon and water exchange in a Dutch pine forest
- BG14 EGU2012-5590
M. J. van de Weg, P. Meir, Y. Malhi, M. Williams, J. Silva-Espejo, and J. Grace
 Investigating the controls on Gross Primary Productivity of a high elevation tropical montane cloud forest
- BG15 EGU2012-5915
R. Balestrini, S. Polesello, and M. Rusconi
 Nitrogen chemistry in surface waters and wet deposition at high altitude in the Sagarmatha (Mt Everest) National Park.
- BG16 EGU2012-7498
S. Niu, D. Li, O. Hararuk, L. Yan, X. Chen, E. Ali, and Y. Luo
 Disturbance and Recovery in Terrestrial Ecosystem Carbon Cycling-a Global Synthesis
- BG17 EGU2012-8205
M. Galvagno, E. Cremonese, M. Migliavacca, U. Morra di Cella, M. Rossini, and R. Colombo
 Influence of early snowmelt on phenology and ecosystem productivity of an unmanaged mountain grassland of northwestern Italian Alps
- BG18 EGU2012-8490
M. Riccardi, S. Alfieri, A. Bonfante, A. Basile, P. Di Tommasi, M. Menenti, and F. De Lorenzi
 Olive cultivars adaptability in Southern Italy in present and future climate
- BG19 EGU2012-9470
M. Tomas, K. Havrankova, M. Pavelka, and D. Janous
 Analysis of meteorological conditions leading to high net ecosystem production of mountain spruce forest: Can

- BG20 EGU2012-12238
R. Cazzolla Gatti
 The impact of logging on biodiversity and carbon sequestration in tropical forests
- BG21 EGU2012-12254
M. A. Arain, S.L. MacKay, M. Khomik, J.J. Brodeur, J. Schumacher, H. Hartmann, and M. Peichl
 Impact of drought and heat events on carbon exchanges in temperate pine forests of different ages in Eastern Canada
- BG22 EGU2012-12357
S. Cerasoli, J.M.N. Silva, N. Carvalhais, F. Silva, G. López, J.M.C. Pereira, and J.S. Pereira
 Seasonal trends of spectral indexes for monitoring GPP in a Mediterranean cork oak savanna
- BG23 EGU2012-12799
 J.G. Zaller, T. Schwarz, R. Hall, E. Ziss, C. von Hohberg und Buchwald, J. Hösch, and **A. Baumgarten**
 Soil types will alter the response of arable agroecosystems to future rainfall patterns

BG2.4 – Non-CO2 influences of land cover changes on climate – Orals

Convener: P.Y. Bernier | Co-Conveners: D. N. Bird, V. Arora, A. Montenegro

Room: 24

Chairperson: Pierre Bernier

- 13:30–13:45 EGU2012-14356
V. Brovkin, V. Arora, E. Kato, L. Boysen, and V. Gayler
 Effect of Land Use Changes on Climate in CMIP5 Projections
- 13:45–14:00 EGU2012-10943
P.C. Stoy, M. Jammet, S. Luyssaert, G.G. Katul, J.-Y. Juang, M.B.S. Siqueira, K.A. Novick, S. Dore, T.E. Kolb, M.C. Montes-Helu, and R.L. Scott
 The impacts of land cover change on surface energy fluxes and radiometric surface temperature in the temperate zone
- 14:00–14:15 EGU2012-6023
E. L. Davin, P. Ciais, and S. I. Seneviratne
 Biogeophysical implications of no-tillage agriculture for the European climate and hot extremes
- 14:15–14:30 EGU2012-12410
 A. M. Tompkins, J.-P. Bell, and **L. Caporaso**
 FOREST-SAGE, a new deforestation model for climate models and an example deforestation climate impact experiment in the Congo.
- 14:30–14:45 EGU2012-5382
R. Bright, M. Kvilevåg, G. Myhre, R. Astrup, and A. H. Strømman
 Long-term Albedo Trajectories of a Managed Forest Landscape: Implications of Norwegian Forestry on Climate
- 14:45–15:00 EGU2012-4875
J. Otto, F.-M. Bréon, M.-J. Schelhaas, B. Pinty, and S. Luyssaert
 Potential effects of forest management on surface albedo

BG2.4 – Non-CO2 influences of land cover changes on climate – Posters

Convener: P.Y. Bernier | Co-Conveners: D. N. Bird, V. Arora, A. Montenegro

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Alvaro Montenegro

- BG24 EGU2012-1460
R. Yoshida, M. Nishimori, T. Iizumi, and T. Osawa
 Contributions of increased agricultural abandonment area to recent surface warming trend in Shikoku Island, Japan
- BG25 EGU2012-9342
J. Ryder, J. Polcher, and S. Luyssaert
 Towards a more detailed representation of the energy balance in a coupled land surface model
- BG26 EGU2012-12044
 P. Longobardi, **A. Montenegro**, H. Beltrami, and M. Eby
 Modelled climate response to regional-scale deforestation
- BG27 EGU2012-6529
P.Y. Bernier, R.L. Desjardins, Y. Karimi-Zindashty, D. Worth, A. Beaudoin, Y. Luo, and S. Wang
 Albedo changes generate a net negative radiative forcing when closed-canopy boreal forest stands are converted to open lichen woodlands

- BG28 EGU2012-9393
D.T. Price, **P.Y. Bernier**, A. Orchansky, and B. Thomas
Albedo of a hybrid poplar plantation in central Alberta, Canada
- BG29 EGU2012-9033
A. Montenegro, H. Beltrami, C. Matharoo, C. Hart, and Q. Mu
Temperature, albedo and evapotranspiration differences between forested and non-forested areas from MODIS observations
- BG30 EGU2012-10686
F. Berninger and N. Kuusinen
Merging high resolution land cover maps with MODIS images to infer albedo of different vegetation types
- BG31 EGU2012-4485
M. Jammet, B. Gielen, E. Moors, S. Rambal, D. Loustau, P. Stoy, and S. Luyssaert
Biophysical effects of forest management on surface temperature

BG2.6 – Earth observation for monitoring the global energy, water and carbon cycles over land – Orals

Convener: J.-C. Calvet | Co-Conveners: Balsamo, R. Lacaze

Room: 24

Chairperson: n.n.

- 08:30–08:45 EGU2012-3651
B. Pinty, T. Kaminski, M. Vossbeck, M. Clerici, and S. Plummer
Exploiting surface albedos products to constrain land surface processes in climate models
- 08:45–09:00 EGU2012-7912
F. Baret, A. Verger, M. Weiss, H. Makhmara, R. Lacaze, and P. Pacholczyk
Use of GEOV1 climatology based on 11 years of consistent observations: identification of trends at the global scale
- 09:00–09:15 EGU2012-3474
F. Camacho, J. Sanchez, R. Lacaze, C.B. Schaaf, and A. Cescatti
Validation of GEOLAND-2 global Albedo products based on SPOT/ VEGETATION observations
- 09:15–09:30 EGU2012-11453
H.A.R. de Bruin, I.F. Trigo, I.J. Lorite, M. Cruz-Blanco, and P. Gavilán
Reference Crop Evapotranspiration obtained from the geostationary satellite MSG (METEOSAT).
- 09:30–09:45 EGU2012-12905
R. d'Andrimont, J.-F. Pekel, E. Bartholomé, and P. Defourny
8 years water bodies monitoring analysis using MODIS over the African continent
- 09:45–10:00 EGU2012-10189
C. Paulik, V. Naeimi, W. Dorigo, W. Wagner, and R. Kidd
A global validation of the ASCAT Soil Water Index (SWI) with in situ data from the International Soil Moisture Network.

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-13390
K. Hufkens, T.F. Keenan, and M. Friedl
Ten years of MODIS land surface phenology
- 10:45–11:00 EGU2012-2841
B. Poulter, P. Ciais, F. Chevallier, N. Delbart, S. Lafont, F. Maignan, S. Saatchi, and S. Sitch
From monitoring to modeling: using biomass observation for benchmarking terrestrial carbon cycle models
- 11:00–11:15 EGU2012-5260
A. L. Barbu, J.-C. Calvet, and S. Lafont
Assimilation of Leaf Area Index and Soil Wetness Index into the ISBA-A-gs land surface model over France
- 11:15–11:30 EGU2012-4390
S. Boussetta, G. Balsamo, A. Bejaars, A. Agusti-Panareda, E. Dutra, and A. Manrique Sunen
Implementation and offline evaluation of a land carbon module within the ECMWF global land surface model: CTESSEL
- 11:30–11:45 EGU2012-2072
M. Parrens, E. Zakharova, S. Lafont, J.-C. Calvet, and Y. Kerr
Validation of SMOS and ASCAT data over France with ISBA-A-gs model and the SMOSMANIA network

11:45–12:00 EGU2012-10116

M. Wattenbach, D. Franz, W. Liang, M. Schmidt, F. Seitz, and A. Güntner

Integration of MODIS LAI products into the hydrological model WGHM indicate the sensitivity of total water storage simulations to vegetation cover dynamics

BG2.6 – Earth observation for monitoring the global energy, water and carbon cycles over land – Posters

Convener: J.-C. Calvet | Co-Conveners: Balsamo, R. Lacaze

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: G. Balsamo

BG32 EGU2012-2049

J.-C. Calvet, C. Albergel, G. Balsamo, M. Balzarolo, A. Barbu, S. Boussetta, A. Cescatti, F. Chevallier, J. de Vries, L. Kullmann, S. Lafont, J.-F. Mahfouf, F. Maignan, D. Papale, B. Poulter, C. Szczypta, and B. Szintai
Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2

BG33 EGU2012-5577

A. Agusti-Panareda, S. Boussetta, G. Balsamo, G. van der Werf, F. Chevallier, R. Engelen, I. Sandu, A. Beljaars, J. Kaiser, A. Andrews, T.J. Conway, K. Masarie, C. Sweeney, and P. Tans
Re-scaling CO₂ natural fluxes over land to correct the global annual growth of CO₂ in the MACC CO₂ analysis

BG34 EGU2012-4556

M. Balzarolo, G. Balsamo, A. Barbu, S. Boussetta, J.-C. Calvet, F. Chevallier, J. de Vries, L. Kullmann, S. Lafont, F. Maignan, D. Papale, and B. Poulter
Modelling carbon and water fluxes at global scale

BG35 EGU2012-9556

S. Lafont, A. Barbu, C. Szczypta, D. Carrer, C. Delire, and **J.-C. Calvet**
2011 spring drought in France : Evaluation of the SURFEX land surface model.

BG36 EGU2012-6575

J. de Vries
Validation of Land Carbon Products over The Netherlands

BG37 EGU2012-12587

B. Szintai and L. Kullmann
Simulation and assimilation of vegetation and natural carbon fluxes over Hungary

BG38 EGU2012-4727

K. Tansey, A. Bradley, B. Smets, C. van Best, and R. Lacaze
The Geoland2 BioPar burned area product

BG39 EGU2012-5970

F. Baup, L. Villa, and R. Fieuzal
Sensitivity of TerraSAR-X interferometric data during crop growing season

BG40 EGU2012-6012

C. Marais-Sicre, F. Baup, and R. Fieuzal
Mapping the crop row direction by using Formosat-2 panchromatic images.

BG41 EGU2012-6019

S. L. Ermida, I. F. Trigo, and C. C. DaCamara
Assessing the impact of viewing and illumination geometry on LST retrievals

BG42 EGU2012-7336

R. Slipkova, P. Sedláč, and R. Pokorný
Energy balance closure evaluation based on closed path and enclosed path eddy covariance measurements

BG43 EGU2012-7431

R. Guzinski, M. Anderson, W. Kustas, H. Nieto, and I. Sandholt
Using dual temperature difference two source energy balance model and MODIS data to estimate surface energy fluxes at regional scales in northern latitudes

BG44 EGU2012-7575

C. Tote, E. Swinnen, K. Beringhs, and G. Govers
Monitoring environmental change in the Andes based on low resolution time series analysis

BG45 EGU2012-7763

M. Weiss, F. Baret, R. Lacaze, T. Block, and B Koetz
Validating GEOV1 products over the 1998-2010 period using the OLIVE tool (On Line Validation Exercise)

BG46 EGU2012-9368

P. Pacholczyk, H. Makhmara, and **R. Lacaze**
12 years time series of SPOT/VEGETATION biophysical variables

- BG47 EGU2012-7844
A. Verger, F. Baret, M. Weiss, R. Lacaze, H. Makhmara, P. Pacholczyk, B. Smets, S. Kandasamy, and E. Vermote
 LAI, FAPAR and FCOVER products derived from AVHRR long time series: principles and evaluation
- BG48 EGU2012-8962
J. Heiskanen, M. Rautiainen, P. Stenberg, T. Majasalmi, M. Möttö, V.-H. Vesanto, and L. Korhonen
 MODIS LAI products over boreal forests of Finland: an assessment of regional and temporal variations
- BG49 EGU2012-11225
S. Schlaffer, R. A. Kidd, E. M. Haas, and W. Wagner
 Validation of Geoland2 small water bodies product: methodological overview
- BG50 EGU2012-9268
S. Liu, J.L. Roujean, A. Kaptue, D. Carrer, S. Lafont, M. Parrens, C. Szczypa, and J.C. Calvet
 Measurement of daily spectral soil albedo over France from MODIS and MSG: comparison with soil moisture derived from ASCAT observations
- BG51 EGU2012-7883
I.F. Trigo, S.C. Freitas, C. Barroso, J. Macedo, R. Perdigão, R. Silva, and P. Viterbo
 Radiation Products based on a constellation of Geostationary Satellites
- BG52 EGU2012-13898
J. Stoyanova, C. Georgiev, and C. Barroso
 Towards Geostationary Satellite Applications in Mediterranean Water Cycle and Fire-Carbon Estimates
- BG53 EGU2012-10981
H.A.R. DeBruin, O.K. Hartogensis, and A.F. Moene
 Some aspects of the two-wavelength Scintillometer method to measure Regional Sensible and Latent Heat Fluxes

BG2.11 – Enhanced Carbon Sequestration in the Terrestrial Biosphere – Orals

Convener: N. Zeng | Co-Conveners: Janssens, R. Valentini, A. Lindroth, D. Loustau

Room: 23

Chairperson: Riccardo Valentini, Ivan Janssens, Dennis Loustau

- 10:30–10:45 EGU2012-7950
A. Ibrom and the NitroEurope-IP Forest Synthesis Team
 Nitrogen as a factor for enhanced carbon sequestration: Results from four NitroEurope-IP forest supersites
- 10:45–11:00 EGU2012-8819
K. Fleischer, K.T. Rebel, M.K. van der Molen, J.W. Erisman, M.J. Wassen, E.E. van Loon, L. Montagnani, C.M. Gough, M. Herbst, I.A. Janssens, D. Gianelle, and A.J. Dolman
 The contribution of nitrogen deposition to the photosynthetic capacity of forests
- 11:00–11:15 EGU2012-9284
T. Chiti, M. Santini, and R. Valentini
 Soil organic carbon sequestration potential and gap of the sub-tropical region
- 11:15–11:30 EGU2012-7578
A. Lindroth, P. Vestin, E. Sundqvist, M. Mölder, A. Båth, M. Hellström, L. Klemetsson, and P. Weslien
 Clear-cutting is causing large emissions of greenhouse gases - are there other harvest options that can avoid these emissions?
- 11:30–11:45 EGU2012-11512
N. Zeng and B. Zaitchik
 Ecological carbon sequestration via wood harvest and storage: Can it be a viable climate mitigation and adaptation strategy?
- 11:45–12:00 EGU2012-7062
H. Böttcher, M. Gusti, A. Mosnier, P. Havlik, and M. Obersteiner
 Global forestry emission projections and abatement costs

BG2.11 – Enhanced Carbon Sequestration in the Terrestrial Biosphere – Posters

Convener: N. Zeng | Co-Conveners: Janssens, R. Valentini, A. Lindroth, D. Loustau

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Riccardo Valentini, Ivan Janssens, Dennis Loustau

- BG54 EGU2012-1689
J. Hatten, J. Mack, J. Dewey, E. Sucre, and Z. Leggett
 Effect of O horizon and Forest Harvest Residue Manipulations on Soil Organic Matter Content and Composition of a Loblolly Pine Plantation in the Southeastern United States

- BG55 EGU2012-6236
D. Konadu, A. Jarvis, and J. Quinton
Assessment of UKs Terrestrial Carbon sequestration potentials: Where do the opportunities lie?
- BG56 EGU2012-409
H. Chuvashova, M. Minke, A. Burlo, A. Thiele, J. Augustin, T. Yarmashuk, V. Tichonov, N. Liashchinskaya, and V. Kuzmin
Greenhouse gas emissions from an abandoned peatland in central Belarus during the first year of rewetting
- BG57 EGU2012-1112
F Worrall
Can carbon offsetting pay for upland ecological restoration?
- BG58 EGU2012-4125
A. Collalti, L. Perugini, T. Chiti, G. Matteucci, A. Oriani, M. Santini, D. Papale, and R. Valentini
A dynamic ecosystem growth model for forests at high complexity structure
- BG59 EGU2012-4183
A. Armstrong, S. Waldron, N. Ostle, and J. Whitaker
The effect of wind turbine-induced microclimates and plant functional types on peatland greenhouse gas emissions and pore water dissolved organic carbon concentrations
- BG60 EGU2012-4973
R. Pokorny, P. Rajsnerova, and J. Kubásek
Carbon sequestration by young Norway spruce monoculture
- BG61 EGU2012-6024
S. Sabbatini, N. Arriga, A. Baiocco, A. Boschi, S. Castaldi, C. Consalvo, B. Gioli, G. Matteucci, M. Tomassucci, A. Zaldei, and D. Papale
Farm-gate budget of energy crops: an experiment to assess changes in GHGs balance due to a land use change from grassland to short rotation coppice of poplar
- BG62 EGU2012-7421
J. Kurbatova, F. Tatarinov, V. Avilov, A. Varlagin, and A. Olchev
CO₂ fluxes in wetlands of European Russia
- BG63 EGU2012-10093
Y. Yan, B. Gielen, M. Schelhaas, F. Mohren, S. Luyssaert, and **IA. Janssens**
Analyzing the management and disturbance in European forest based on self-thinning theory
- BG64 EGU2012-10517
B. Veselinovic and H. Hager
Carbon and Nitrogen dynamics in forest soils depending on light conditions and tree species
- BG65 EGU2012-11963
T. Liener, **A. Hammerle**, M. Williams, B. Scharnagl, M. Themeßl, A. Gobiet, and G. Wohlfahrt
Carbon storage potential of a managed mountain grassland - Inverse modelling and uncertainty analysis
- BG66 EGU2012-12218
E. Grieco, T. Chiti, and R. Valentini
Land use change and carbon stock dynamics in Sub-Saharan Africa - Case study of Western Africa - Ghana
- BG67 EGU2012-12412
G. Matteucci, G. Fabbio, P. Cantiani, M. Marchetti, G. Carraro, N. Pavone, M. Kovac, P. Simoncic, M. Panella, and B. De Cinti
Multipurpose management of forests: carbon, biodiversity and socio-economic well-being: Objectives, Actions and Expected results of LIFE+ project "ManFor C.BD"

CL4.8/BG2.22 – Climate Change: Carbon Cycle, Mortality, Growth, and Shift of Forests (co-organized) – Orals

Convener: F. D'Aprile | Co-Conveners: N. Tapper, D. Dunkerley

Room: 19

Chairperson: Fabrizio D'Aprile

- 15:30–15:45 EGU2012-13053
O. Khabarova and I. Savin
El Niño, global CO₂ and forest growth
- 15:45–16:00 EGU2012-5548
M. Dury, A. Hambuckers, P. Warnant, I. Jacquemin, W. Thuiller, and L. François
Modelling the risk of ecosystem disruption in Europe with a dynamic vegetation model
- 16:00–16:15 EGU2012-1612
R. Schuster, B. Zeisler, and **W. Oberhuber**
Impact of climate warming-induced increase in drought stress on successional dynamic of a coniferous forest within a dry inner Alpine environment

- 16:15–16:30 EGU2012-8151
T. Matthews, Y. Malhi, C. Girardin, J. Silva-Espejo, L. Aragão, D. Metcalfe, J. Rapp, L. Mercado, R. Fisher, D. Galbraith, J. Fisher, N. Salinas-Revilla, A. Friend, N. Restrepo-Coupe, and R. Williams
 Simulating forest productivity along a neotropical elevational transect: temperature variation and carbon use efficiency
- 16:30–16:45 EGU2012-2302
B. Schuldt, C. Leuschner, V. Horna, G. Moser, M. Köhler, O. van Straaten, and H. Barus
 Change in hydraulic properties and leaf traits in a tall rainforest tree species subjected to long-term throughfall exclusion in the perhumid tropics
- 16:45–17:00 EGU2012-1611
J. Chu
 The impact of afforestation on projected climate in Australia during the 21st Century
- 17:00–17:15 EGU2012-13678
B. Székely, A. Kania, N. Pfeifer, H. Heilmeyer, J. Tamás, N. Szöllösi, and W. Mücke
 A concept for extraction of habitat features from laser scanning and hyperspectral imaging for evaluation of Natura 2000 sites - the ChangeHabitats2 project approach

CL4.8/BG2.22 – Climate Change: Carbon Cycle, Mortality, Growth, and Shift of Forests (co-organized) – Posters

Convener: F. D'Aprile | Co-Conveners: N. Tapper, D. Dunkerley

Hall Z | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Fabrizio D'Aprile

- Z109 EGU2012-425
F. D'Aprile, N. Tapper, P. Baker, L. Bartolozzi, and A. Bottacci
 Changes in the relationships between climate and silver fir (*Abies alba* Mill.) growth during the 20th century in the Tuscan Apennine Alps (Middle Italy)
- Z110 EGU2012-9592
C. Irschick, S. Mayr, and G. Wohlfahrt
 The response of European tree species to drought: a meta-analysis
- Z111 EGU2012-7897
g. ceccherini and n. gobron
 Spatio-temporal patterns of natural vegetation dynamics for different land use and ecosystems over Europe 1997–2011
- Z112 EGU2012-10953
P. Sinigoj, K. Goergen, A. C. Vasconcelos, J. Junk, K. Houchi, L. Pfister, and L. Hoffmann
 A sensitivity study on the impacts of climate change on European tree species distribution based on ENSEMBLES RCMs
- Z113 EGU2012-7822
H. Müller-Haubold, D. Hertel, Ch. Leuschner, and D. Seidel
 Patterns of aboveground biomass allocation of mature beech forests change in response to water availability - a transect study in Northern Germany
- Z114 EGU2012-726
V. Popovic, D. Jokanovic, M. Sijacic-Nikolic, T. Cirkovic-Mitrovic, and V. Babic
 Impact of climatic factors on the growth rings width of *Taxodium* from Backa Palanka area (*Taxodium distichum* (L.) Rich.)
- Z115 EGU2012-4933
R. Pokorny, O. Urban, P. Holisova, M. Sprtova, L. Sigut, and R. Slipkova
 Growth strategy of Norway spruce under air elevated [CO₂]
- Z116 EGU2012-12847
A. Giuggiola, A. Rigling, and M. Dobbertin
 Reduction of stand density as a management tool to mitigate the effect of drought

HS10.8/BG4.4 – Environmental and anthropogenic change affecting catchments and groundwater-dependent ecosystems (co-organized) – Orals

Convener: S. J. Schymanski | Co-Conveners: S. Fatichi, B. Klöve, S. Manfreda, M. Sivapalan, C. Stumpp

Room: 39

Chairperson: Stan Schymanski

- 13:30–13:45 EGU2012-9494
A. Montanari
 Modelling hydrological systems under change: sociohydrology and sustainable development

- 13:45–14:00 EGU2012-3449
P. Kumar, V. Srinivasan, P. V. V. Le, and D. Drewry
 Ecological Acclimation and Hydrologic Response: Problem Complexity and Modeling Challenges
- 14:00–14:15 EGU2012-1871
P. M. Rossi, P. Ala-aho, and A-K. Ronkanen
 The role of peat double porosity on groundwater-surface water interaction in a drained fen
- 14:15–14:30 EGU2012-13429
T. G. Reichenau, T. Krimly, and K. Schneider
 Effects of dynamic agricultural decision making in an ecohydrological model
- 14:30–14:45 EGU2012-6047
R. Wilby
 Evaluating environmental flows under climate variability and change
- 14:45–15:00 EGU2012-12952
U. Ehret, E. Zehe, V. Wulfmeyer, and K. Warrach
 Bias Correction used for Climate Projections from Climate Models - A Critique

HS10.8/BG4.4 – Environmental and anthropogenic change affecting catchments and groundwater-dependent ecosystems (co-organized) – Posters

Convener: S. J. Schymanski | Co-Conveners: S. Fatichi, B. Klöve, S. Manfreda, M. Sivapalan, C. Stumpp

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Simone Fatichi

- A296 EGU2012-10825
S. Pande
 On Budyko curve as a consequence of climate-soil-vegetation equilibrium hypothesis
- A297 EGU2012-3337
X. Xu, D. Yang, and H. Yang
 Impact of past climate variability and change on catchment ecohydrology in China
- A298 EGU2012-14242
S. J. Schymanski, D. Or, M. L. Roderick, and M. Sivapalan
 Prediction under change: invariant model parameters in a varying environment
- A299 EGU2012-5637
g. ceccherini and f. castelli
 Vegetation response to climate, eco-hydrological modeling at basin scale in water-limited ecosystems
- A300 EGU2012-9983
 J.Z. Coletti and **M.R. Hipsey**
 Ecohydrological feedbacks mediate wetland habitat response to climate variability
- A301 EGU2012-8131
G. Bertrand, J. Masini, N. Goldscheider, J.M. Gobat, and D. Hunkeler
 Investigation of spatio-temporal variability of water uptake in a groundwater-dependent ecosystem using a stable isotope approach ($\delta^{18}\text{O}$, $\delta^2\text{H}$): Pfyn Forest, Switzerland
- A302 EGU2012-12928
A. Sastre-Merlín, S. Martínez-Pérez, and E. Molina-Navarro
 Groundwater in steppe environments: "El Hito" Lagoon wetland as a case of study (Cuenca; Spain)
- A303 EGU2012-8229
Simon, Mádl-Sz?nyi, and Weidinger
 Investigation of groundwater dependent ecosystems in a complex hydraulic situation
- A304 EGU2012-3721
U. Schneidewind, M. El-Rawy, P. De Becker, and O. Batelaan
 Analysis and Rehabilitation of a Groundwater-Dependent Ecosystem in Belgium
- A305 EGU2012-3708
 S. Witczak, J. Kania, K. Rozanski, **P. Wachniew**, A. Zurek, and M. Dulinski
 Environmental water requirements of groundwater dependent ecosystems: conflict between nature and man
- A306 EGU2012-802
N. Welti, D. Lockington, T. Jakeman, and R. Hunt
 Characterizing hot spots throughout the catchment
- A307 EGU2012-12861
T. Graeff, G. Baroni, A. Bronstert, A. Hohlbein, and S. Oswald
 Influence of climatic change on hydrological processes on coastal areas, a model study
- A308 EGU2012-11257
G. Garner, D.M. Hannah, I.A. Malcolm, and J.P. Sadler
 Inter-annual variability of stream temperature, micro-climate and heat exchange dynamics: a comparison of forest and moorland environments

- A309 EGU2012-13432
K. Khamis, D.M Hannah, L.E Brown, and A.M Milner
 Sub-seasonal river heat flux partitioning in an alpine, glacierized basin
- A310 EGU2012-1367
N. Frasheri, N. Pano, A. Frasheri, G. Beqiraj, S. Bushati, and E. Taska
 A review on anthropogenic impact to the Micro Prespa lake and its damages
- A311 EGU2012-8652
 C. Ikiel, **DE Kilic**, and A. Atalay Dutucu
 General Ecological Characteristics Based on GIS Methods in Poyrazlar Lake, Turkey
- A312 EGU2012-11926
 T. V. Sapelko, **K.V. Shemanaev**, D.D. Kuznetsov, and N.V. Ignatieva
 Relation of human and natural factors in the development of lakes according to a complex analysis of lake sediments

BG6.3/CL5.14/SSP5.4 – Micropaleontology: a key to modern and ancient environments (co-organized) – Orals

Convener: K. Koho | Co-Conveners: F. Jorissen, A. Sluijs, C. Fontanier

Room: 23

Chairperson: n.n.

- 08:30–08:45 EGU2012-4722
N. Dijkstra, J. Junttila, K. Husum, J. Carroll, D. Klitgaard-Kristensen, and M. Hald
 Benthic foraminifera as indicators of pollution in high latitude marine environments
- 08:45–09:00 EGU2012-3861
H. Kitazato, N. Ohkawara, A. Iwasaki, H. Nomaki, I. Akoumianaki, and H. Tokuyama
 Live (Rose-bengal stained) foraminifera from deep-sea anoxic salt brine in the Eastern Mediterranean: toward understanding limit of life for single-celled eukaryotes (foraminifera)
- 09:00–09:15 EGU2012-13508
R.J. Telford and M. Kucera
 Consequences of the mismatch between the depth at which planktonic foraminifera live and the calibration depth of SST transfer functions
- 09:15–09:30 EGU2012-11943
H. Takagi, K. Moriya, T. Ishimura, A. Suzuki, H. Kawahata, H. Hirano, and IODP Exp. 330 Scientists
 Individual ontogenetic stable isotope records of Recent planktonic foraminifers: Testing for algal photosymbiosis
- 09:30–09:45 EGU2012-5731
J.C. Wit, L.J. de Nooijer, R. Hennekam, G.J. de Lange, and G.J. Reichert
 Foraminiferal Na/Ca as a tool to reconstruct salinity
- 09:45–10:00 EGU2012-11727
T. Hesse, D. Wolf-Gladrow, J. Bijma, G. Lohmann, and R. Zeebe
 Impact of vital effects and carbonate chemistry on $\delta^{13}\text{C}$ in benthic foraminifera: model sensitivity experiments

BG6.3/CL5.14/SSP5.4 – Micropaleontology: a key to modern and ancient environments (co-organized) – Posters

Convener: K. Koho | Co-Conveners: F. Jorissen, A. Sluijs, C. Fontanier

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Koho/Jorissen

- BG68 EGU2012-4283
C. Lopes
 Statistical considerations on the application of Micropaleontology in order to reconstruct past environments: a diatom case study.
- BG69 EGU2012-7899
M. Theodor, Y. Milker, A. Müller, and G. Schmiedl
 Paleoecology of benthic foraminifers from Paleogene shelf environments: Example from the "Latdorf" transgression in northeastern Germany
- BG70 EGU2012-4068
M.A. Kaminski, S. Kender, A. Ciurej, and R. Balc
 Pliocene-Pleistocene Benthic Foraminiferal assemblages in the Southern Bering Sea, (IODP Expedition 323).
- BG71 EGU2012-1066
A. Cortina, F.J Sierro, G. Filippelli, and J.A. Flores
 The orbital control of the sea level and past climatic changes in the Gulf of Lions (off south of France) from 133 kyr to 400 kyr

- BG72 EGU2012-13830
J. M. Bouchal
High resolution taxonomic study of the late Eocene (~34 Ma) Florissant palynoflora, Colorado, USA
- BG73 EGU2012-9385
A. Bornemann, R. Walther, S. D'haenens, C. Joachim, R.P. Speijer, J. Mutterlose, and R.D. Norris
Microfossil response to the PETM at DSDP Site 401 (eastern North Atlantic)
- BG74 EGU2012-2373
M. Saeidi Ortakand and S. Hasegawa
Biostratigraphy and paleoceanography of the Japan Sea in Joetsu Basin since 120 cal. kyr BP
- BG75 EGU2012-5800
D. Theobalt and O. Mandic
Badenian planktonic foraminifera as climate proxies at the southern margin of the Central Paratethys (Ugljevik, Bosnia and Herzegovina)
- BG76 EGU2012-5401
K. Zamelczyk, T.L. Rasmussen, K. Husum, and M. Hald
Climate changes and calcium carbonate dissolution of planktic foraminifera assemblages over the last 30,000 years in the Fram Strait
- BG77 EGU2012-11662
S. Iepure, T. Namiotko, A. Montanari, E. Brugiapaglia, M. Mainiero, S. Mariani, and M. Fiebig
A comparison of modern and fossil ostracods from Frasassi Cave system (northeastern Apennines, Italy) to infer past environmental conditions
- BG78 EGU2012-7848
I. Hessler, M. Young, M. Mohtadi, A. Lückge, and H. Behling
The distribution of organic-walled dinoflagellate cysts in marine surface samples of the eastern Indian Ocean in relation to environmental conditions
- BG79 EGU2012-6113
V.M.P. Bouchet, S. Hess, J.K. Dolven, and E. Alve
The use of fossil benthic foraminifera to define reference conditions for present-day marine waters
- BG80 EGU2012-4744
N. Dijkstra, J. Junttila, K. Husum, J. Carroll, and M. Hald
Assessing environmental impact from gas and oil exploration in the SW Barents Sea using benthic foraminiferal assemblages
- BG81 EGU2012-10288
E. Bertoni, L. Bertello, L. Capotondi, C. Bergami, F. Giglio, M. Ravaioli, C. Rossi, and A. Ferretti
Benthic foraminifera as indicators of hydrologic and environmental conditions in the Ross Sea (Antarctica)
- BG82 EGU2012-11885
J. Vidovi?, V. ?osovi?, M. Jura?i?, and ?. Benac
Total assemblages of benthic foraminifera from a mixed siliciclastic/carbonate inner shelf; preliminary results from the bays of Soline and Nin (Adriatic Sea, Croatia)
- BG83 EGU2012-2203
F. Fiorini and S. W. Lokier
Recent benthic foraminiferal assemblages and sedimentary facies distribution from marginal marine environment of Abu Dhabi region (Arabian Gulf)
- BG84 EGU2012-11503
E. Salgueiro, T. Rodrigues, F. de la Granda, N. Villaceros-Robineau, F. Alonso, D. Zuñiga, P. A Martin, C.G. Castro, A. Voelker, and F. Abrantes
Temperature calibration along the NW Iberian margin: multi-proxy approach
- BG85 EGU2012-564
D. Evans and W. Müller
Foraminifera Mg/Ca palaeothermometry in a high CO₂ world - appropriate correction for secular change in seawater chemistry
- BG86 EGU2012-5045
T. Kuhnt, O Friedrich, G. Schmiedl, Y. Milker, A. Mackensen, and R. Schiebel
Relationship between the pore density in benthic foraminifera and bottom-water oxygen content
- BG87 EGU2012-8203
K.A Koho, E Pina-Ochoa, E. Geslin, and N. Risgaard-Petersen
Vertical migration, nitrate uptake and denitrification: survival mechanisms of foraminifers (*Globobulimina turgida*) under low oxygen conditions
- BG88 EGU2012-7745
A. Movellan, R. Schiebel, M.V. Zubkov, A. Smyth, H.. Howa, and **F. Jorissen**
Quantification of individual foraminifer protein content using nano-spectrophotometry
- BG89 EGU2012-5527
C.-W. Chien, C.-Y. Huang, H.-C. Lee, S.-D. Luo, S.-Y. Jiang, and C.-H. Liu
Polymorphic authigenic carbonates and foraminifera taphonomical characteristics of a paleoseep, Southwestern Taiwan

BG8.1 – Biosignatures and their applicability to astrobiology and primitive life – Orals

Convener: F. Foucher | Co-Conveners: N. BOST, C. Heim, B. Cavalazzi, F. Westall

Room: 24

Chairperson: F. Foucher

- 15:30–15:45 EGU2012-3141
D. Gourier, L. Binet, and H Vezin
 Electron Paramagnetic Resonance: a tool for in situ detection, imaging and dating of biosignatures in primitive organic matter
- 15:45–16:00 EGU2012-441
M. Bourbin, S. Derenne, F. Westall, D. Gourier, P. Gautret, J-N. Rouzard, and F. Robert
 EPR study of thermally treated Archean microbial mats analogues and comparison with Archean cherts: towards a possible marker of oxygenic photosynthesis?
- 16:00–16:15 EGU2012-8419
J. J. Brocks
 Molecular fossils and the late rise of oxygenic photosynthesis
- 16:15–16:30 EGU2012-4190
A. Picard, M. Obst, and A. Kappler
 Evaluating the preservation potential of iron-oxidizing bacteria during experimental diagenesis
- 16:30–16:45 EGU2012-9748
A. Hubert, L. Lemelle, M. Salome, P. Cloetens, F. Westall, and A. Simionovici
 Synchrotron Radiation X-Ray Fluorescence nanoanalyses of the metallome of a ~3.3 Ga-old microbial biofilm from the Barberton greenstone belt, South Africa.
- 16:45–17:00 EGU2012-2334
J.-P. P. de Vera, U. Böttger, J. Fritz, I. Weber, J. Malaszkiewicz, P. Serrano, J. Meessen, S. Ott, D. Wagner, and H.-W. Hübers
 Detection of cyanobacteria and methanogens embedded in Mars analogue minerals by the use of Raman spectroscopy

BG8.1 – Biosignatures and their applicability to astrobiology and primitive life – Posters

Convener: F. Foucher | Co-Conveners: N. BOST, C. Heim, B. Cavalazzi, F. Westall

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: N. Bost

- BG90 EGU2012-3139
 F. Rull, **G. Venegas**, O. Montero, and J. Medina
 Study of Carbonaceous Material in cherts from Barberton Greenstone Belt and the Astrobiological Implications.
- BG91 EGU2012-4287
F. Foucher, F. Westall, and A. Knoll
 Biosignatures observed by Raman mapping in silicified materials
- BG92 EGU2012-12225
 C. Ramboz, Y. Rubert, **N. Bost**, F. Westall, and C. Lerouge
 Cathodoluminescence : an imaging technique for the search of extraterrestrial life
- BG93 EGU2012-7046
E. Perri
 The ultrastructure of carbonate minerals for discerning their biotic or abiotic origin
- BG94 EGU2012-14112
L. Rodrigues, T. Valente, A. Correia, A. Alves, B. Foing, and G. R. Davies
 Contribution of eukaryotic microbial communities to the formation of Fe-rich accretions in an extreme acidic environment
- BG95 EGU2012-13985
P. Gautret, C. Ramboz, R. de Wit, F. Delarue, F. Orange, S. Sorieul, and F. Westall
 Micro-scale in situ characterisation of the organic and mineral composition of modern, hypersaline, photosynthetic microbial mats
- BG96 EGU2012-6380
S. Bulat, D. Marie, E. Bulat, I. Alekhina, and J.R. Petit
 Ultra-low microbial cell abundance and fatal DNA damage at the surface in Central East Antarctica

HS8.3.3 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Orals

Convener: L. Weihermueller | Co-Conveners: M. Lamers, Y. Kuzyakov, P.C. Stolk

Room: 39

Chairperson: Marc Lamers

- 10:30–10:45 EGU2012-3564
S. Blagodatsky and P. Smith
 Coupling biological processes and gaseous transport in models describing GHG emission from soils
- 10:45–11:00 EGU2012-1482
F. Albanito, J. McAllister, P. Smith, and D. Robinson
 Dual-chamber measurements of $\delta^{13}\text{C}$ of soil-respired CO_2 partitioned using a field-based three end-member model
- 11:00–11:15 EGU2012-3055
A. Don, C. Rödenbeck, and G. Gleixner
 How energetic and environmental constraints of microorganisms determine the carbon turnover in soils
- 11:15–11:30 EGU2012-1841
A. Keuter
 Nitrogen retention efficiency and nitrogen losses of a managed and phytodiverse temperate grassland
- 11:30–11:45 EGU2012-6636
D.E. Pelster, M.H. Chantigny, P. Rochette, D.A. Angers, C. Rieux, and A. Vanasse
 Two years of gaseous emissions from contrasting soils amended with organic and synthetic nitrogen fertilizers.
- 11:45–12:00 EGU2012-13855
M. Dondini and P. Smith
 Soil C change and GHG emissions after land use change to bioenergy crops

HS8.3.3 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Posters

Convener: L. Weihermueller | Co-Conveners: M. Lamers, Y. Kuzyakov, P.C. Stolk

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Yakov Kuzyakov and Lutz Weihermüller

- A227 EGU2012-2446
 G. Roth, **A. Giesemann**, R. Well, and H. Flessa
 Elucidating source processes of N_2O fluxes following grassland-to-field-conversion using isotopologue signatures of soil-emitted N_2O
- A228 EGU2012-6630
 P. Rochette, **D.E. Pelster**, M.H. Chantigny, D.A. Angers, C. Liang, G. Belanger, N. Ziadi, E. Charbonneau, and D. Pellerin
 Trace gas emissions following deposition of excreta by grazing dairy cows in eastern Canada
- A229 EGU2012-4252
A. Schindlbacher, C. Brandstätter, W. Borken, C. Spötl, and W. Wanek
 Contribution of inorganic C to the CO_2 efflux from a forest soil on dolomite bedrock
- A230 EGU2012-8439
 E.S. Bicalho, D.B. Teixeira, A.R. Panosso, L.I. Perillo, J.L. Iamaguti, G.T. Pereira, and **N. La Scala Jr.**
 Spatial variability structure of soil CO_2 emission and soil physical and chemical properties characterized by fractal dimension in sugarcane areas
- A231 EGU2012-8471
 A.S.R.S. Bahia, **J. Marques Jr.**, N. La Scala Jr, A.R. Panosso, V. Barron, and J. Torrent
 On the relation between soil CO_2 emission and aspects of soil diffuse reflectance
- A232 EGU2012-8509
 E.B. Figueiredo, A.R. Panosso, and **N. La Scala Jr**
 CO_2 -C emissions associated to soil tillage, liming and gypsum applications in sugarcane areas under green and burned harvest
- A233 EGU2012-10582
P. Dörsch, J. Zhu, and J. Mulder
 High N_2O emission in an N-saturated subtropical forest, southwest China
- A234 EGU2012-12768
 E. Tóth, **Cs. Farkas**, Gy. Gelybó, and I. Lagzi
 Effect of inter-row cultivation on soil CO_2 emission in a peach plantation
- A235 EGU2012-13809
 M. Herbst, G. Welp, W. Amelung, **L. Weihermueller**, and H. Vereecken
 Linking soil organic carbon pools with measured fractions
- A236 EGU2012-13839
A. Graf, A. van de Boer, M. Schmidt, and L. Weihermueller
 Description and first tests of a tunnel-shaped flow-through chamber for minimum disturbance net ecosystem flux measurements
- A237 EGU2012-13891
E. Veldkamp, B. Koehler, and M.D. Corre
 Strong indications of nitrogen limited methane uptake in tropical forest soils

- A238 EGU2012-13953
A. Gunina and Y. Kuzyakov
Carbon dioxide emissions from soils affected by vegetation types
- A239 EGU2012-13954
J. Pausch and Y. Kuzyakov
Isotopic composition of soil CO₂ to evaluate microbial availability of organic carbon
- A240 EGU2012-13955
S. Nadeem, S. Hansen, M. Bleken, and **P. Dörsch**
N₂O emission from organic barley cultivation as affected by green manure treatment
- A241 EGU2012-7918
M. Khomik, N. Carvalhais, M. Forkel, M. Reichstein, M. Schrumpf, C. Beer, J. Curiel Yuste, I. Janssens, S. Luyssaert, J.-A. Subke, S. Trumbore, and T. Wutzler
Global patterns of increasing soil organic carbon turnover rates with increasing mean surface temperatures, across different forest biomes, are driven by boreal forests.

HS10.2/GM8.2 – Estuarine processes (co-listed) – Orals

Convener: M. Toffolon | Co-Conveners: A. Rinaldo, HHG Savenije, S. M. Mudd

Room: 39

Chairperson: Marco Toffolon

- 15:30–15:45 EGU2012-2138
M. Kleinhans, R. Terwisscha van Scheltinga, M. van der Vegt, H. Markies, and **W. van Dijk**
Turning the tide: experimental formation of dynamic tidal basin morphology
- 15:45–16:00 EGU2012-10908
A. D'Alpaos, S.M. Mudd, and L. Carniello
How do salt-marsh ecosystems respond to changes in the environmental forcings?
- 16:00–16:15 EGU2012-316
T. Van Oyen, S. Lanzoni, A. D'Alpaos, S. Temmerman, P. Troch, and L. Carniello
A simplified model to describe the flow field on tidal floodplains
- 16:15–16:30 EGU2012-55
J.C. Winterwerp and Z.B. Wang
Regime shifts in muddy estuaries: tidal response to river deepening and canalization
- 16:30–16:45 EGU2012-10721
M. Becker, K. Schrottke, A. Bartholomä, V. B. Ernstsens, C. Winter, and D. Hebbeln
Tide-driven dynamics of ephemeral fluid mud deposits in troughs of large, subaqueous dunes in an estuarine turbidity zone
- 16:45–17:00 EGU2012-10685
M. Carpintero García, A. Jurado López, E. Contreras Arribas, and M.J. Polo Gómez
Density-salinity-suspended sediment experimental curves for Guadalquivir River estuary conditions

HS10.2/GM8.2 – Estuarine processes (co-listed) – Posters

Convener: M. Toffolon | Co-Conveners: A. Rinaldo, HHG Savenije, S. M. Mudd

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Hubert Savenije

- A257 EGU2012-1592
H. Cai and H. H.G. Savenije
Explicit solution to tidal damping equation in alluvial estuaries
- A258 EGU2012-1812
H. Cai, M. Toffolon, and H. H.G. Savenije
Application of the Lagrangian approach to calculate dispersion coefficient in estuaries
- A259 EGU2012-2550
J.I.A. Gisen and H.H.G. Savenije
Relationship between Estuary Shape and Hydrodynamics in Alluvial Estuaries
- A260 EGU2012-4130
M. Hegnauer and H.H.G. Savenije
Alternated pumping reduces the impact of freshwater diversion in the Pungue estuary
- A261 EGU2012-3503
H. E. de Swart, A. Waterhouse, and A. Valle-Levinson
Modelling lateral distribution of waves, currents and bedload transport in an estuarine cross-section
- A262 EGU2012-5647
J.-P. Belliard and M. Toffolon
Characteristic scales for eco-morphological processes in tidal flats and salt marshes

- A263 EGU2012-6554
B. Radosavljevic, J. Gibeaut, and P. Tissot
Sea-Level Rise: Estuarine Wetlands of Mustang Island at Imminent Risk of Submergence
- A264 EGU2012-9461
J. Leroux, D. Lague, and N. Brodu
Spatio-temporal variability of channel bank erosion in mega-tidal salt-marshes (Mont-Saint-Michel bay) quantified by terrestrial laser-scanner surveys
- A265 EGU2012-5886
S. Eeman, **S.E.A.T.M. van der Zee**, E. Vermue, and P.G.B. de Louw
Integrity of thin fresh water lenses in coastal wetlands to temporal changes of recharge by rainfall
- A266 EGU2012-8214
L. Sander, M. Pejrup, and L. H. Nielsen
Beach ridge and lagoon systems as indicator for sea-level changes
- A267 EGU2012-11680
P. Vethamony, S. Rupali Patgaonkar, M. T. Babu, and S. Lokesh
Residence time of pollutants is an indicator of health of the Gulf of Kachchh, a macrotidal regime: a numerical study
- A268 EGU2012-11367
J. Martins, P. Portela, A. Soares, A. Ramos-Pereira, and J. Trindade
Elemental and stable isotope analysis in the assessment of fluvio-marine interactions over the last 5000 years
- A269 EGU2012-12723
A. Ramos-Pereira, J. Trindade, C. Ramos, A. Soares, R. Danielson, H. Granja, A. Torres, A. Ribeiro, J. Martins, and P. Portela
A multi-proxy analysis in the assessment of fluvio-marine interactions over the last 5000 years

SSP3.3 – Reconstructing redox conditions from sedimentary records – an interdisciplinary approach (sponsored by IAS) (co-listed) – Posters

Convener: C. März | Co-Conveners: P. Boening, A. Dickson

Hall A | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A342 EGU2012-4921
S. Naeher, A. Gilli, and C.J. Schubert
High-resolution redox dynamics of iron and manganese as recorded in the sediments of Lake Zurich, Switzerland
- A343 EGU2012-7395
S.B. Wirth, A. Gilli, T.W. Dahl, H. Niemann, D. Ravasi, M.F. Lehmann, R. Peduzzi, S. Peduzzi, M. Tonolla, and F.S. Anselmetti
9800 years of meromixis and euxinia in Lake Cadagno (Swiss Alps): Sedimentary and biogeochemical evidence for the formation of a permanently stable chemocline
- A344 EGU2012-5151
M. Budakoglu, M. Karaman, S.B. Karabel, S.G. Geredeli, A. Bulbul, H. Kurt, S. Uzasci, A. Kan, A. K. Akay, F. R. Yilmaz, L. Gumus, M. Civas, C. Sevis, and M. Kumral
Recent sediment geochemistry of an alkaline lake: Lake Acigöl (Denizli), SW Anatolia Turkey
- A345 EGU2012-5347
S. Miladinova, A. K. Stips, and G. Lessin
Decadal trends in simulated oxygen dynamics and hypoxia in the Baltic Sea
- A346 EGU2012-8749
K. Moriya, M. Kuwae, M. Yamamoto, T. Kunihiro, H. Onishi, H. Hamaoka, M. Saito, T. Sagawa, J. Shibata, N. Fujii, N. Yoshie, K. Omori, and H. Takeoka
Distributions of mesophilic archaeotal membrane lipids and TEX86 thermometry in the modern enclosed shallow coastal anoxic basin
- A347 EGU2012-4904
P. Böning, T. Shaw, and H.-J. Brumsack
Nickel - chlorin relationship in Peru upwelling sediments: a water column source of Nickel for geoporphyrins?
- A348 EGU2012-6825
S.C. Brassell
Proxies for Redox Conditions during early Aptian Ocean Anoxic Event 1a
- A349 EGU2012-1565
Y. Huang, Z. Zhang, L. Zan, and W. Li
The role of redox conditions in controlling the marine organic abundance in Lower Yangtze Formation, South China

- A350 EGU2012-9697
H. Engin, A. Sar?, and **? Koç**
Redox Sensitive Trace Element Enrichments of Organic Matter Rich Rocks (Kürnüş-Göynük/Bolu, Turkey)
- A351 EGU2012-14397
R. Kara-Gülbay, S. Korkmaz, and G. Yaylal?-Abanuz
Organic Geochemistry of Oltu Gemstone Coal, Erzurum (NE Turkey)
- A352 EGU2012-526
N. Minibaev and I. Maiorov
Pyrite origin in argillites of Bobrikovskian horizon from incised-valley system zone
- A353 EGU2012-1032
J.D. Owens, D.L. Boyer, M.L. Droser, and T.W. Lyons
Low oxygen bottom waters in the Devonian ocean through a combined biological and geochemical approach
- A354 EGU2012-2283
J. Knies, S. Grasby, B. Beauchamp, and C. Schubert
Water mass denitrification during the latest Permian extinction in the Panthalassic Ocean
- A355 EGU2012-11609
W. Powell and K. Handle
Geochemical Proxies as an Effective Tool for Determining Depositional Environments for Burgess Shale-Type Fossil Localities

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies (co-listed) – Orals

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Room: 6

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- 15:30–15:45 EGU2012-7412
A. Gude, E. Kandeler, and **G. Gleixner**
Input related microbial carbon dynamic of soil organic matter in particle size fractions
- 15:45–16:00 EGU2012-11668
C. Biasi, N.M. Tavi, M. Oinonen, J. Kukkonen, C. Platner, J. Juutilainen, and P. Martikainen
A novel ¹⁴C approach to follow fate of carbon in organic soils
- 16:00–16:15 EGU2012-12966
T. Chiti, G. Certini, F. Marzaioli, and R. Valentini
Radiocarbon dating of magnetic and non magnetic soil fractions as a method to estimate the heterotrophic component of soil respiration in a primary forest of Ghana.
- 16:15–16:30 EGU2012-8458
B. Ahrens, W. Borken, J. Muhr, K. Savage, T. Wutzler, S. Trumbore, and M. Reichstein
Bayesian calibration of a soil organic carbon model with radiocarbon measurements of heterotrophic respiration and soil organic carbon as joint constraints
- 16:30–16:45 EGU2012-2304
D. B. Wiedemeier, M. D. Hilf, R. H. Smittenberg, and M. W. I. Schmidt
Improved quantification of pyrogenic carbon in soils and sediments by a HPLC-DAD method
- 16:45–17:00 EGU2012-158
A. Braun, K. Auerswald, and H. Schnyder
Quantification of isotopic turnover in agricultural systems

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies (co-listed) – Posters

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- XY556 EGU2012-1645
M. Griepentrog, S. Bodé, P. Boeckx, and M.W.I. Schmidt
Amino sugar dynamics in forest soil exposed to increased nitrogen deposition - Composition and turnover in soil density fractions
- XY557 EGU2012-2057
A. Huguet, I. Belmahdi, C. Fosse, V. Grossi, and S. Derenne
Distribution of archaeal and bacterial glycerol dialkyl glycerol tetraethers in tropical sediments from Guadeloupe (French West Indies): implications for application of the MBT/CBT and TEX86 proxies

- XY558 EGU2012-2977
S. Naeher, P. Schaeffer, P. Adam, and C.J. Schubert
 Maleimides in recent sediments - New insights into chlorophyll degradation and palaeoenvironmental reconstructions
- XY559 EGU2012-4889
R. Hood-Nowotny and B Vanlauwe
 Priming effects of biochar elucidated using stable isotope techniques.
- XY560 EGU2012-7096
S.M. Fazle Rabbi, Q. Hua, H. Daniel, P.V. Lockwood, B.R. Wilson, and I.M. Young
 Turnover times of soil organic matter in aggregates based on radiocarbon measurements
- XY561 EGU2012-7193
 L Khomo, OA Chadwick, K Rogers, and **S Trumbore**
 Short and long-term controls of SOM dynamics in a South African Landscape
- XY562 EGU2012-7256
G. Hongxiang
 Factors controlling the type of consortia in cold seep environments: a molecular and isotopic investigation on authigenic carbonates from the South China Sea
- XY563 EGU2012-7258
N. Senapati, Q. Hua, P.V. Lockwood, H. Daniel, B.R. Wilson, S. Ghosh, J. Yeluripati, and P. Smith
 Estimating turnover times of soil organic carbon fractions based on natural C-14 abundance
- XY564 EGU2012-7287
M. Zech, T. Krause, S. Meszner, and D. Faust
 Incorrect when uncorrected: Reconstructing vegetation history using n-alkane biomarkers in loess-paleosol sequences - a case study from the Saxonian loess region, Germany
- XY565 EGU2012-8179
J. Petersen
 Use of ^{15}N in the study of inter- and intra-species competition for applied nitrogen
- XY566 EGU2012-8250
C.A. Sierra, S.E. Trumbore, E.A. Davidson, S.D. Frey, K.E. Savage, and F.M. Hopkins
 Predicting decadal trends and transient responses of radiocarbon storage and fluxes in a temperate forest soil
- XY567 EGU2012-8775
S. Meyer, J. Leifeld, and I. Hajdas
 Soil microbial degradation continues after soil organic matter stabilization
- XY568 EGU2012-11215
C. I. Blaga, J.W. de Leeuw, D. Verschuren, and J.S. Sinninghe Damsté
 A full lipid biomarker based record from Lake Challa, Tanzania
- XY569 EGU2012-11708
G. Umirzakov, F.-K. Barthold, I. Forkutsa, L. Breuer, and H.-G. Frede
 Stable isotope approach for estimating phreatic evaporation in irrigated lands of Ferghana Valley (Uzbekistan)
- XY570 EGU2012-11991
C.L. Phillips, K.J. McFarlane, A.R. Desai, and D. Risk
 Using radiocarbon as a high-frequency tracer of forest CO₂ emissions sources: preliminary results from a Northern Wisconsin case study
- XY571 EGU2012-13228
 F. Dong, **D. Baer**, T. Owano, M. Gupta, and R. Provencal
 Novel instrumentation for direct measurements of site-specific isotopic nitrogen and isotopic oxygen in ambient nitrous oxide

SSS8.1 – Ecology and Erosion (co-listed) – Orals

Convener: A. Cerdà | Co-Conveners: M.J. Kirkby, S. Manfreda, J. Mataix-Solera, V. Arcenegui, P. Dlapa

Room: 3

Chairperson: Victoria Arcenegui and Mike Kirkby

- 15:30–15:45 EGU2012-11494
T Mimmo, R Terzano, L Medici, A Lettino, S Fiore, N Tomasi, R Pinton, and S Cesco
 Interaction of root exudates with the mineral soil constituents and their effect on mineral weathering
- 15:45–16:00 EGU2012-168
A. Carminati
 Root water uptake and rhizosphere dynamics
- 16:00–16:15 EGU2012-629
D. J. Oyedele, R. Pini, E. Sparvoli, and M. Scatena
 The dynamics of soil aggregate breakdown in water in response to landuse as measured with laser diffraction technique

- 16:15–16:30 EGU2012-8985
C. Geißler, K. Nadrowski, P. Kühn, M. Baruffol, A.C. Lang, G. von Oheimb, W. Härdtle, and T. Scholten
 Soil erosion and biodiversity - Effects of ecological variables on throughfall kinetic energy for different spatial scales
- 16:30–16:45 EGU2012-366
A. Puttock, R.E Brazier, J.A.J Dungait, R. Bol, and C.J.A Macleod
 Developing an Understanding of Vegetation Change and Fluvial Carbon Fluxes in Semi-Arid Environments
- 16:45–17:00 EGU2012-4678
R. G. Hilton, A. Galy, A. J. West, N. Hovius, and G. G. Roberts
 Geomorphic control on the delta-15N of mountain forest: Implications for N cycling in terrestrial ecosystems

SSS8.1 – Ecology and Erosion (co-listed) – Posters

Convener: A. Cerdà | Co-Conveners: M.J. Kirkby, S. Manfreda, J. Mataix-Solera, V. Arcenegui, P. Dlapa

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Pavel Dlapa and Salvatore Manfreda

- XY572 EGU2012-970
A. S. Krivobok
 Microorganisms applying for artificial soil regeneration technology in space greenhouses
- XY573 EGU2012-2781
V. Jiménez-Donaire, P. Hueso-González, and J.D. Ruiz-Sinoga
 Preliminary study of the short term response of soil properties to forest fire in the South of Spain
- XY574 EGU2012-6427
 O. Fernandez-Ugalde, **P. Barré**, F. Hubert, I. Virto, C. Girardin, E. Ferrage, L. Caner, and C. Chenu
 To what extent clay mineralogy affect soil aggregation? Insights from fractionation analyses conducted on soils under different land-uses.
- XY575 EGU2012-10809
P. Dlapa, K. Chrenková, A. Hrabovský, and J. Mataix-Solera
 The effect of land use changes on water repellency and aggregate stability of soils in the viticulture district of Modra (SW Slovakia)
- XY576 EGU2012-11192
 T Repas, **J Germida**, and S Kaminskyj
 Phytoremediation of Alberta oil sand tailings using native plants and fungal endophytes
- XY577 EGU2012-11951
D. Termini
 Experimental observation of the rule of flexible vegetation on erosion processes
- XY578 EGU2012-3920
Y. Martin, E. Johnson, and O. Chaikina
 Investigating the Lack of Pit/Mound Microtopography in Subalpine Forests of the Canadian Rockies
- XY579 EGU2012-1110
 M. Jordan, F. Garcia-Orenes, J. Mataix-Solera, and **E. Garcia-Sanchez**
 Evaluation of the physical properties, bulk density and aggregate stability of potential substrates in quarry restoration.
- XY580 EGU2012-2812
P. Hueso-González, V. Jiménez-Donaire, and J.D. Ruiz-Sinoga
 Relationship soil-water-plant after the dry season in dry Mediterranean areas
- XY581 EGU2012-4827
A. Cerdà, M.F. Jurgensen, and F.A. González-Peñaloza
 The litter cover of citrus leaves control soil and water losses in chemically managed orchards
- XY582 EGU2012-9795
A. Bidló, P. Szűcs, A. Horváth, O. Kámán, E. Németh, and P. Juhász
 Comparing the methods for determination of carbon in soil
- XY583 EGU2012-3772
A. Cerdà, J. Mataix-Solera, and V. Arcenegui
 Aggregate stability in citrus plantations. The impact of drip irrigation
- XY584 EGU2012-96
J. Mataix-Solera, A. Cerdà, V. Arcenegui, A. Jordán, and L.M. Zavala
 Fire effects on soil aggregate stability: a review and synthesis
- XY585 EGU2012-2106
B.G. Rawlins, R.M. Lark, and J. Wragg
 A novel method for soil aggregate stability measurement by laser granulometry with sonication

XY586 EGU2012-3023

N. J. Kuhn

Connecting the cycles: impact of farming practices, Carbon and nutrient erosion on GHG emissions

