

Poster Presentations

Symposium V: Extracellular Enzymes in Aquatic and Terrestrial Ecosystems under a Changing Climate

Poster Number	Title	Authors/Affiliations
5 P-1	PHOTOINACTIVATION MECHANISMS OF EXTRACELLULAR ENZYMES IN SURFACE WATERS	Christine EGLI* (christine.egli@usys.ethz.ch), Elisabeth JANSSEN , <i>Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.</i>
5 P-2	RESPONSE OF ALKALINE PHOSPHATASE KINETICS TO INPUTS OF HUMIC SUBSTANCES AND NUTRIENTS IN A LAKE ENCLOSURE EXPERIMENT	Cleo N. STRATMANN* (stratmann@igb-berlin.de), Stella A. BERGER , Lars GANZERT , Darren P. GILING , Jens C. NEJSTGAARD , Mark O. GESSNER , <i>Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB), Stechlin, Germany</i>
5 P-3	RESPONSE OF ENZYME ACTIVITY C3, C4 PLANT UNDER ELEVATED CO ₂ AND NITROGEN ADDITION IN A SALT MARSH ECOSYSTEM	Sunghyun KIM* ^{1,3} , Thomas J. MOZDZER ^{1,2} , Hojeng KANG ³ , J. Patrick MEGONIGAL ¹ ; ¹ Smithsonian Environmental Research Center, Edgewater, MD, USA ² Bryn Mawr College, USA; ³ School of Civil and Environmental Engineering, Yonsei University, Seoul, Korea

- 5 P-4** CELLULASE ACTIVITY AND METHANOGENIC COMMUNITY IN MANGROVE SOILS
Hironori ARAI, *Japan International Research Center for Agricultural Sciences, Tsukuba, 305-8686, Japan*; **Vo Quang MINH, Tran Kim TINH, Truong Quoc PHU**, *Can Tho University, Can Tho, Viet Nam*; **Chandra Shekhar JHA**, *National Remote Sensing Centre (ISRO), Hyderabad 500, 037, India*; **Ryo YOSHIOKA, Syunsuke HANAZAWA, Kazuyuki INUBUSHI*** (inubushi@faculty.chiba-u.jp) *Graduate School of Horticulture, Chiba University, 271-8510, Japan*
- 5 P-5** EFFECT OF CITRATE ON *ASPERGILLUS NIGER* PHYTASE ADSORPTION AND CATALYTIC ACTIVITY IN SOIL
Malika MEZELI*, **Timothy S. GEORGE** (Timothy.george@hutton.ac.uk), **Courtney D. GILES, Roy NEILSON** *The James Hutton Institute: The James Hutton Institute, Dundee, Scotland, UK*, **Daniel MENEZES-BLACKBURN**, * **Philip M. HAYGARTH**, *Lancaster University: Lancaster Environment Centre, Lancaster, UK*
- 5 P-6** PHOSPHATASE ACTIVITY IN A TROPICAL MONTANE FOREST
Karla DIETRICH* (karla.dietrich@uni-tuebingen.de), **Yvonne OELMANN**, *Department of Geoscience/Geoecology, University of Tuebingen, Germany*
- 5 P-7** SOIL ECOENZYME STOICHIOMETRIC SHIFTS LAG BEHIND CLIMATE-DRIVEN ALTITUDINAL DISTRIBUTION CHANGES OF THE SOUTHERNMOST EUROPEAN FIR
J. REDONDO* (jredondo@ujaen.es), **B. VIÑEGLA, L. ÁLVAREZ, V. LECHUGA, J.A. CARREIRA**, *Center for Advanced Studies in Earth Sciences (CEACTierra), University of Jaén, 23071-Jaén, Spain.*
- 5 P-8** ROLE OF SOIL EXTRACELLULAR ENZYMES ON CARBON SEQUESTRATION UNDER CONTRASTING SOIL ECOSYSTEMS
Rupinder KAUR* and **Anand N. SINGH** (dranand1212@gmail.com) *Department of Botany, Panjab University Chandigarh-160014*

- 5 P-9** MODELLING IN SITU ACTIVITIES OF ENZYMES AS A TOOL TO EXPLAIN SEASONAL VARIATION OF SOIL RESPIRATION FROM AGRO-ECOSYSTEMS **Rana Shahbaz ALI*** (rana@uni-hohenheim.de), **Ellen KANDELER**, **Christian POLL**, *Institute of Soil Science and Land Evaluation, Soil Biology Department, University of Hohenheim, Stuttgart, Germany*; **Joachim INGWERSEN**, *Institute of Soil Science and Land Evaluation, Biogeophysics Department, University of Hohenheim, Stuttgart, Germany*; **Michael Scott DEMYAN**, **Yvonne Nkwain FUNKUIN**, *Institute of Plant Production and Agroecology in the Tropics and Subtropics, University of Hohenheim, Stuttgart, Germany*; **Hans-Dieter WIZEMANN**, *Institute of Physics and Meteorology, University of Hohenheim, Stuttgart, Germany*
- 5 P-10** MANIPULATING THE 'ENZYMIC LATCH' FOR PEATLAND RESTORATION **Adel ALSHEHR I**(bsp202@bangor.ac.uk), Timothy JONES, C. Dunn and Chris FREEMAN; *School of Biological Science, Bangor University, UK*
- 5 P-11** SOIL EXO-ENZYME ACTIVIY IN NUTRIENT LIMITED TROPICAL AND MEDITERRANEAN ECOSYSTEMS **Dolores ASENSIO*** (loles@creaf.uab.es), **Jordi SARDANS**, **Romà OGAYA**, **Josep PENUELAS**; *CSIC, Global Ecology Unit CREAM-CSIC-UAB, Cerdanyola del Valles, 08193 Barcelona, Catalonia, Spain.*
- 5 P-12** DISSOLVED ORGANIC NITROGEN: PROTEOLYSIS AND MINERALISATION IN AUSTRALIAN SOILS **Mark FARRELL***, (mark.farrell@csiro.au), *CSIRO Agriculture, Adelaide, SA, Australia*; **Diane ALLEN**, *DSITI, Brisbane, Qld, Australia*; **Ben MACDONALD**, *CSIRO Agriculture, Canberra, ACT, Australia*
- 5 P-13** TEMPERATURE SENSITIVITY OF ENZYMES RELATED TO C AND N CYCLES IN WESTERN PATAGONIA SOILS **Angela MACHUCA***(angmachu@udec.cl), **Idalba ESPINOZA**, **Daniel CHÁVEZ**, **Katerin ALMENDRAS**, *School of Sciences and Technology*, **Carolin CORDOVA**, *Faculty of Agronomy, University of Concepción, Chile*
- 5 P-14** MOISTURE AND TEMPERATURE SENSITIVITY OF EXTRACELLULAR ENZYMES **Christian POLL*** (Christian.poll@uni-hohenheim.de), **Rana Shahbaz ALI**, *Institute of Soil*

*Science and Land Evaluation, University of
Hohenheim, Stuttgart, Germany*

5 P-15 DEADWOOD REPRESENTS (MICROBIAL) *HOT SPOTS*:
THE MORE ADVANCED THE DECAY THE “*HOTTER*” THE
WOOD

Judith ASCHER-JENULL*, *DISPAA, University of Florence, Italy; Institute of Microbiology, University of Innsbruck, Austria*; **María GÓMEZ-BRANDÓN**, *Institute of Microbiology, University of Innsbruck, Austria*, **Tommaso BARDELLI** (tommaso.bardelli@unifi.it), *DISPAA, University of Florence, Italy; Institute of Microbiology, University of Innsbruck, Austria*; **Giulia FRAVOLINI**, *University of Molise, Italy*; **Paola ARFAIOLI**, **Maria Teresa CECCHERINI**, **Giacomo PIETRAMELLARA**, *DISPAA, University of Florence, Italy*; **Markus EGLI**, *Department of Geography, University of Zürich, Switzerland*; **Marta PETRILLO**, *University of Zürich, Switzerland*; *WSL Swiss Federal Institute for Forest, Snow and Landscape Research, Switzerland*; **Heribert INSAM**, *Institute of Microbiology, University of Innsbruck, Austria*; **Flavio FORNASIER**, *CREA-RPS, Gorizia, Italy*.

5 P-16 INFLUENCE OF HYDROLOGICAL LEGACY ON
DECOMPOSITION ACROSS A CHRONOSEQUENCE IN AN
OMBROTROPHIC PEATLAND

Samuel A.F. Bonnett* (sam.bonnett@uwe.ac.uk)
Department of Applied Sciences, University of the West of England, Bristol, UK; **Edward Maltby** *School of Environmental Sciences, University of Liverpool, UK*; **Chris Freeman** *School of Biological Sciences, Bangor University, Bangor, UK*.

- 5 P-17** CARBON SEQUESTRATION AND ENZYMIC LATCH IN RED, BLACK & WHITE MANGROVE WETLAND SOILS
George Shwamyil DASAT* (bsp604@bangor.ac.uk), Plateau State Polytechnic, Barkin Ladi, Plateau State, Nigeria; **Timothy JONES**, **Christian DUNN** and **Chris FREEMAN**; Carbon Capture Laboratory, School of Biological Sciences, Bangor University, Gwynedd, Wales, UK
- 5 P-18** VERTICAL PATTERNS OF ECO-ENZYME ACTIVITIES IN TWO TEMPERATE FOREST SOILS AFTER 20 YEARS OF NITROGEN ADDITIONS
Stefan J. FORSTNER¹ (stefan.forstner@boku.ac.at), **Stefanie KLOSS**¹, **Katharina M. KEIBLINGER**¹, **Michael TATZBER**², **Wolfgang WANEK**³, **Patrick SCHLEPPI**⁴, **Frank HAGEDORN**⁴, **Per GUNDERSEN**⁵, **Martin H. GERZABEK**¹, **Sophie ZECHEMEISTER-BOLTENSTERN**¹; ¹ Institute of Soil Research, University of Natural Resources and Life Sciences, Vienna, Peter-Jordan-Str. 82, 1190 Vienna, Austria; ² Division of Radiation Protection, Austrian Agency for Health and Food Safety, Spargelfeldstr. 191, 1220 Vienna, Austria; ³ Department of Microbiology and Ecosystem Science, University of Vienna, Althanstr. 14, 1090 Vienna, Austria; ⁴ Swiss Federal Institute for Forest, Snow and Landscape Research, Zürcherstr. 111, 8903 Birmensdorf, Switzerland; ⁵ University of Copenhagen, Rolighedsvej 23, DK- 1958 Frederiksberg C, Denmark.
- 5 P-19** THE IMPACT OF EXOGENOUS PHENOLIC INHIBITORS ON ENZYME ACTIVITIES IN PEAT
Zuhair ALOULAITI* (bsp419@bangor.ac.uk), **Timothy JONES**, **Christian DUNN**, and **Chris FREEMAN**; Wolfson Carbon Capture Laboratory. Bangor University, UK.