

# 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	<b>Christine EGLI*</b> ( <a href="mailto:christine.egli@usys.ethz.ch">christine.egli@usys.ethz.ch</a> ), <b>Elisabeth JANSSEN</b> , <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	<b>Cleo N. STRATMANN*</b> ( <a href="mailto:stratmann@igb-berlin.de">stratmann@igb-berlin.de</a> ), <b>Stella A. BERGER</b> , <b>Lars GANZERT</b> , <b>Darren P. GILING</b> , <b>Jens C. NEJSTGAARD</b> , <b>Mark O. GESSNER</b> , <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 <sub>2</sub> AND NITROGEN ADDITION IN A SALT MARSH ECOSYSTEM	<b>Sunghyun KIM*</b> <sup>1,3</sup> , <b>Thomas J. MOZDZER</b> <sup>1,2</sup> , <b>Hojeng KANG</b> <sup>3</sup> , <b>J. Patrick MEGONIGAL</b> <sup>1</sup> ; <sup>1</sup> Smithsonian Environmental Research Center, Edgewater, MD, USA <sup>2</sup> Bryn Mawr College, USA; <sup>3</sup> 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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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](mailto: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. FORSTNER**<sup>1</sup> ([stefan.forstner@boku.ac.at](mailto:stefan.forstner@boku.ac.at)), **Stefanie KLOSS**<sup>1</sup>, **Katharina M. KEIBLINGER**<sup>1</sup>, **Michael TATZBER**<sup>2</sup>, **Wolfgang WANEK**<sup>3</sup>, **Patrick SCHLEPPI**<sup>4</sup>, **Frank HAGEDORN**<sup>4</sup>, **Per GUNDERSEN**<sup>5</sup>, **Martin H. GERZABEK**<sup>1</sup>, **Sophie ZECHEMEISTER-BOLTENSTERN**<sup>1</sup>; <sup>1</sup> Institute of Soil Research, University of Natural Resources and Life Sciences, Vienna, Peter-Jordan-Str. 82, 1190 Vienna, Austria; <sup>2</sup> Division of Radiation Protection, Austrian Agency for Health and Food Safety, Spargelfeldstr. 191, 1220 Vienna, Austria; <sup>3</sup> Department of Microbiology and Ecosystem Science, University of Vienna, Althanstr. 14, 1090 Vienna, Austria; <sup>4</sup> Swiss Federal Institute for Forest, Snow and Landscape Research, Zürcherstr. 111, 8903 Birmensdorf, Switzerland; <sup>5</sup> 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](mailto:bsp419@bangor.ac.uk)), **Timothy JONES**, **Christian DUNN**, and **Chris FREEMAN**; Wolfson Carbon Capture Laboratory. Bangor University, UK.