BOOK OF ABSTRACTS

IUFRO 8.01.02 Landscape Ecology Conference 2017
The Green-Blue Nexus:
Forests, Landscapes and Services

24 - 29 September 2017
Halle (Saale), Germany

IUFRO

MARTIN-LUTHER-UNIVERSITÄT
HALLE-WITTENBERG

Bundesministerium
für Bildung
und Forschung

ESP
Ecosystem Services Partnership

ELI
EUROPEAN LAND-USE INSTITUTE

Global LAND Programme

IALE
INTERNATIONAL ASSOCIATION FOR LANDSCAPE ECOLOGY

IUFRO 8.01.02 Landscape Ecology Conference 2017

The Green-Blue Nexus:
Forests, Landscapes and Services

24 - 29 September 2017
Halle (Saale), Germany

Book of abstracts

Edited by:

Alina Schürmann, Prof. Dr. Christine Fürst, Dr. Marcin Spyra

Scientific board:

Christine Fürst (lead), João Azevedo, Marc Deconchat, Ljusk Ola Eriksson, Peilei Fan, Davide Geneletti, Louis Iverson, Peter Akong Minang, Felix Müller, Guillermo Martínez Pastur, Giovanni Sanesi, Yusuf Serengil, Pinar Pamukcu, Robert Scheller, Tanja Suni, Wei Ning Xian.

IUFRO Division 8.01.02: Sandra Luque (Coordinator)

Organizing committee:

Christine Fürst, Prof. Dr.; João Azevedo, PhD; Urmas Peterson; Martin Volk, Prof. Dr.; Marcin Spyra, Dr.; Martin Schultze; Patrick Halka; Ignacio J. Diaz-Maroto, PhD.

Photography at the front cover: Landscape between Lednice and Valtice, South Moravia, Czech Republic. Author: Marcin Spyra

Acknowledgement

Special thanks to **our Sponsors**

INTEgrated Landscape Assessment for Sustainable Resource Management

Federal Ministry of Education and Research

Social-ecological research and technological innovations for improved integration of cultural ecosystem services in participatory planning processes

Land - Open Access Journal - sponsorship PhD Award

Climate - Open Access Climate Science Journal

Special Issue Supporters

Change and Adaptation in Socio-Ecological Systems
Climate Change, Social Changes, Technological Development - Open Access Journal

Ecological Processes
Open Access Journal

Organizers & host:

IUFRO 8.01.02 Landscape Ecology Working group

International Association for Landscape Ecology

Martin-Luther-University Halle-Wittenberg

Supporters:

European Land-use Institute GLP nodal office on integrated land management, planning and policy

An interdisciplinary community of science and practice fostering the study of land systems and the co-design of solutions for global sustainability

Worldwide network to enhance the science, policy and practice of ecosystem services for conservation and sustainable development

Programm

	Sunday, the 24th September
	Hörsaalzentrum (Lecturing Center, Theodor-Lieser Str. 9), entrance area
From 12:00	Registration
	House 4 (Geography, von Seckendorff-Platz 4) PC 3.34 (3rd floor)
11:00 - 14:00	Christine Fürst (Frank Pietsch, HongMi Koo) **GISCAME Training** (presentation + live)
	House 4 (Geography, von Seckendorff-Platz 4) PC 3.34 (3rd floor)
14:00 - 17:00	Ola Eriksson **ForSYS (Heureka) Training**
	House 4 (Geography, von Seckendorff-Platz 4) H4 3.32 (3rd floor)
10:00 - 18:00	Peter Vogt **Guido´s Toolbox Training**
18:00 - 21:00	Icebreaker and welcome note

	Monday, the 25th September					
	Hörsaalzentrum (Lecturing Center, Theodor-Lieser Str. 9), G.Vollhard-HS					
08:00 - 08:30	Registration					
08:30 - 08:45	**Plenary** Welcome note of the conference chair, organizational information, overhanding of the LAND award to Chiara Cortinovis, University of Trento					
08:45 - 09:00	**Plenary Keynote** IUFRO LE coordinator, Sandra Luque					
09:00 - 09:30	**Plenary Greeting** Chancellor of MLU, Marcus Leber					
09:30 - 10:00	**Plenary Keynote** - Pushpam Kumar Sustainable Development Goals: Looking through the Lens of Natural Capital					
10:00 - 10:30	**Plenary Keynote** - Giovanni Sanesi How green are our cities?					
10:30 - 11:00	Coffee Break					
	Parallel sessions					
11:00 - 13:30	Fabio Salbitano, Marcin Spyra **Urban planning and new technologies in participation**		Ignacio Diaz-Maroto **Integrated forest landscape management: biodiversity conservation and ecosystem services**		Jose Alberto Gobbi, Sandra Luque **Ecosystem Services in Changing Forested Land-scapes: tradeoffs and land use options at different scales**	
	Von Seckendorff-Platz 1, SR 1.02		Von Seckendorff-Platz 1, SR 1.03		Von Seckendorff-Platz 1, SR 1.30	
	Fan, P.	Nature-based solutions for urban landscapes under post-industrialization and globalization: Barcelona versus Shanghai	Paletto, A.	Aesthetic value of peri-urban forest landscapes: the visitors' viewpoint in Monte Morello forest (Italy)	Luque, S.	Forest related ecosystem services and trade-offs in multifunctional systems

	Goncalves, A.	Impact of Urban and Peri-urban Landscape on Local Climate Conditions - The Case Study of the City of Braganca (Portugal) - 2012-2016	Isaacs, P.	Restoration priorities in Colombia using a landscape analyst. The roam protocol in a posconflict scenario	Repo, A.	Quantifying climate benefits and biodiversity loss of harvesting forest residues for bioenergy - an integrated assessment
	Salbitano, F.	AGUACRUZ: Water, Landscape, and Cities. Hydrological and landscape ecology modelling for the green and blue future of Santa Cruz de la Sierra (Bolivia)	Khanina, L.	Integrated landscape management: vegetation patterns and biodiversity conservation on forest and abandoned agricultural lands in the Central European Russia	Lecina-Diaz, J.	The positive relationship between forest carbon stocks and biodiversity: spatial distribution, concurrence and drivers across five climates in Spain and Quebec
	Halka, P.	Approaches for understanding and analyzing urban agglomerations – experiences from European and German spatial planning	Pamukcu-Albers, P.	How to integrate water related ecosystem services into forest management plans? - A case study in Mediterranean forests of Turkey	De Meo, I.	Relationships between forest management practices and ecosystem services: an analysis in black pine (Pinus nigra J.F.Arnold) forests in Central Italy
	Nguyen, L.	Managing the urban colour: similarities and differences between European and Asian strategies	Diaz-Maroto, I.	Biodiversity conservation and ecosystem services in highland landscapes: case study of Galician eastern mountain	Romero-Oliva, C. S.	Saprophytic Litter Fungi and associated Coleoptera as bioindicators of land use change in fragmented landscapes from the Lachua Ecoregion, Alta Verapaz, Guatemala
	Spyra, M.	Ecosystem services deficit areas in urban cross-boundary landscape context: Insights into environmental governance	Schulz, J.	Identifying suitable multifunctional Forest Landscape Restoration areas in Central Chile providing an efficient nexus between habitat connectivity, carbon sequestration and erosion prevention	Gobbi, J.	Paying for ecosystem services to improve forest conservation in Northern Argentina

Gonçalves, A., Ornelas, G., Ribeiro, A. C., Feliciano, M.

Impact of Urban and Peri-urban Landscape on Local Climate Conditions – The Case Study of the City of Bragança (Portugal) - 2012-2016

Institution: CIMO - Instituto Politécnico de Bragança, Portugal

Keywords: green Infrastructure, urban climate, urban heat island

In cities, buildings and paved surfaces change local climate conditions, generating the so called urban climate (Oke, 2004). Urban climate is also influenced by local orography and regional climate. One of the most important urban effects on climate is known as the urban heat island effect (UHI), measured as the difference in temperature between the urban context and the rural surroundings. Research on city/climate interactions can be an important contribution for urban planning, helping to address the negative effects of urbanization (Oke, 2004; Ren et al., 2010) Starting in 2011, as part of a transnational project BIOURB (INTERREG-POCTEP), a study is being carried out aiming at analysing the urban climate of Bragança (Portugal) (Gonçalves et al., 2014), a city located in a mountain area with a complex terrain. This presentation focuses on demonstrating the local influence of the urban and periurban landscape on local climate and evaluating possible planning options that can help improving urban climate. The research consists on a cross-evaluation between meteorological data, gathered from a local network of sensors (23 temperature and humidity sensors, three wind speed and direction sensors and one automatic weather station) and a GIS analysis of the urban and topographical elements. This network covers seven local climate zones, including urban, peri-urban and rural sites. Results show that despite the small size of the city of Bragança (aprox. 25.000 hab. and 12 sq. km2) there is a mean UHI that reached 3 ºC in the summer with extremes of up to 6º C. Such results are related with the characteristics of the monitored sites and, as expected, UHI is more intense in densely urbanized areas. Other local effects include the presence of an altitude gradient (corrected for UHI analysis) and dynamical processes, such as the nocturnal drainage of cold air. Reduced UHI intensity was achieved in Urban Green Spaces, more effective during summer periods, mostly motivated by the presence of deciduous trees. Despite these positive effects, the studied green spaces are still under the influence of the UHI, being warmer than peri-urban locations. The complex mountain terrain was responsible for differences related to landscape attributes which should be taken into consideration in planning. Therefore recommendations are presented, including the role of the urban green infrastructure as a tool to improve the local climate conditions in the city (summer cooling and attenuated cold temperature effects).

Gonçalves, A., Ribeiro, A. C., Maia, F., & Feliciano, M. (2014). Clima Urbano de Bragança. In A. Gonçalves (Ed.): Instituto Politécnico de Bragança. Oke, T. R. (2004). Initial guidance to obtain representative meteorological observations at urban sites: World Meteorological Organization Geneva. Ren, C., Ng, E. Y.-y., & Katzschner, L. (2010). Urban climatic map studies: a review. International Journal of Climatology, n/a-n/a. doi: 10.1002/joc.2237