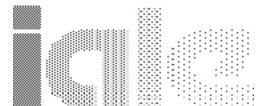
#### Vol. 32 no. 4, December 2014

available as pdf-file from the website of IALE www.landscape-ecology.org



# Bulletin

### **International Association for Landscape Ecology**

#### NEW YEAR GREETINGS FROM THE IALE PRESIDENT

Greetings to all IALE members, and best wishes for 2015. This will be a year with many highlights: in July 2015 we will have our World Congress in Portland where close to 60 Symposia show the diversity of our field and bring together many delegates from all over the world. The call for papers is now open under: <a href="http://www.ialeworldcongress.org/call-for-presentations.html">http://www.ialeworldcongress.org/call-for-presentations.html</a>

IALE International supports the Conference with a substantial amount for early career scientists. Together with contributions from US-IALE we expect strong support for the next generation of Landscape Ecologists (see Application in this Bulletin and on the IALE International Web site).



2015 will also be a transition year in the Executive Committee of IALE International. Several board members including the President will rotate off. We are still looking for new candidates. The deadline to submit nominations is the 15. January 2015. Check at: <a href="http://www.landscape-ecology.org">http://www.landscape-ecology.org</a>

Write-in candidates will be accepted up to April 15. Please encourage IALE members to become active in IALE International.

Landscape-ecological knowledge is increasingly used at many levels of education, government and private institutions, and we have a growing interest in South America, the Middle East, India and China. Since 2011 a number of new regions have been established. In 2015 we will most likely celebrate the inauguration of IALE India.

The IALE EC is proud to return roughly 90% of our income to the regions in the form of early career support, loans or the support for newly emerging regions. I am convinced that with your efforts our Society will grow further. We have a challenging mission and program – so please spread the word among your colleagues and encourage them to become a member of IALE.

Yours

Felix Kienast (IALE President 2011 - 2015)



## ELECTION OF IALE EXECUTIVE COMMITTEE (2015-2019) - SEARCH FOR CANDIDATES

As announced in IALE Bulletin 32(1):

http://www.landscape-ecology.org/index.php?id=50

IALE International is searching for candidates for its Executive Committee (EC). There is still the opportunity to nominate IALE members for the vacant positions. The IALE EC consists of a President (currently Felix Kienast), a Past President (currently Bruce Jones), a Secretary General (currently Thomas C. Edwards), a Treasurer (currently Ralf-Uwe Syrbe), a Bulletin Editor and Deputy Secretary General (currently Benjamin Burkhard) and four Vice Presidents (currently Giovanni Zurlini, JeanPaul Metzger, Liding Chen, Robert Scheller).

The members are elected for a four-year term, with the last general election in 2011. Two of the four vice-presidents are elected to a four-year term between the general elections. In the existing Executive Committee, Liding Chen, Robert Scheller were elected as vice-presidents in 2013, and will thus continue after the next general election until 2017, when a new election of two vice-presidents for 2013-2017 will be launched.

Therefore we need candidates for

- a President
- a **Secretary General** (Tom Edwards will run again)
- a Treasurer
- a Bulletin Editor & Deputy Secretary General (Benjamin Burkhard will run again)
- two Vice Presidents
- a Chairman of the IALE Council (Xiuzhen Li will run again)

Nominations shall be made by two members in good standing and shall be consented to in writing by the signature of the nominee.

Nomination forms can be downloaded at: <a href="http://www.landscape-ecology.org">http://www.landscape-ecology.org</a>

Forms are due in the hands of the Secretary General (t.edwards@nr.usu.edu) by 15 January 2015.

#### 9<sup>th</sup> IALE WORLD CONGRESS FOREIGN SCHOLAR TRAVELAWARD

9<sup>th</sup> IALE World Congress "Crossing Scales, Crossing Borders: Global Approaches to Complex Challenges" in Portland, Oregon USA, July 5 - 10, 2015

#### **PURPOSE**

With support from IALE and the United States Regional Association of the International Association for Landscape Ecology (US-IALE), Foreign Scholar Travel Awards support attendance by landscape ecologists from foreign countries and foster international exchange about advances in landscape ecology.

#### THE AWARD

The award recipients will receive US\$1,200 at the 9th IALE World Congress. It is the recipients' responsibility to make all transportation arrangements and cover all transportation and lodging costs associated with participating in the meeting.



#### **ELIGIBILITY**

- 1. Applicants are NOT eligible if:
- the applicant is a citizen or current resident of the United States or Canada.
- the applicant is a citizen of a G7 country (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States).
- the applicant (of any nationality) is currently

...continued from page 2 (IALE World Congress Travel Awards)

- studying in the United States or Canada.
- the applicant (of any nationality) received a Master's or Doctorate at an institution in the United States or Canada.
- they were a previous travel award recipient.
- 2. Applicants must submit an abstract for a presentation at the 2015 World Congress. You must submit your abstract to the conference organizers by **31 December 2014** and select expedited review decision:

http://www.ialeworldcongress.org/call-for-presentations.html

## 9th IALE World Congress July 5-10, 2015 Portland, Oregon USA

#### **SELECTION CRITERIA**

- 1. Scientific merit and application to landscape ecology. We will favor applicants who demonstrate that their research (i) advances the scientific basis of landscape ecology, and/or (ii) the application of landscape ecology for natural resource protection or management. New and established landscape ecologists are encouraged to apply.
- 2. Financial need. Applicants must have demonstrated financial need and show that without FSTA support, they would not be able to attend the World Congress. Applicants currently studying or residing in G7 countries must demonstrate the extent to which they have pursued travel funding from their host institution.
- 3. Professional development. Applicants must demonstrate that attending the World Congress will represent a significant professional opportunity for developing their expertise in landscape ecology and establishing working relationships with landscape ecologists from other countries. Preference is given to applicants in earlier career stages.
- 4. Clarity of English and expression.
- 5. Geographical representation. Selection may be made to maximize the number of countries and regions represented.

#### **HOW TO APPLY**

All application materials must be in English. Incomplete applications will not be reviewed. A complete application contains the following:

- 1. Name, Institution, Email address, Postal Address, Citizenship.
- 2. Curriculum vitae (maximum 4 pages).
- 3. Title and abstract of the presentation submitted for the World Congress. The presentations should also be independently submitted to the conference organizers by **31 December 2014** with expedited review decision at the conference website:

http://www.ialeworldcongress.org/call-for-presentations.html

- 4. A summary of your research (750 words maximum) explaining how your research extends the scientific basis or application of landscape ecology (see Selection Criteria listed above).
- 5. Statement on what you hope to gain professionally from attending the World Congress (200 words maximum).
- 6. An explanation (200 words maximum) of why you need financial assistance to attend the conference (see Selection Criteria listed above).

Submit your abstract to the conference organizers by **31 December 2014** with expedited review decisions at the conference website:

http://www.ialeworldcongress.org/call-for-presentations.html

Submit your FSTA application materials by **31 December 2014** by email to:

kathy.vigness.raposa<AT>gmail.com

Acceptable formats include Microsoft Word, Rich Text Format and Adobe Acrobat (pdf). Please put all materials into a single file with your last name included in the filename (e.g., Vigness\_FSTA\_2015). Files will be returned if materials are not combined into a single file.

Awards will be announced on or before **31 January 2015**.

MORE INFORMATION 9<sup>th</sup> IALE World Congress:

http://www.ialeworldcongress.org

Other questions -- email us at

kathy.vigness.raposa<AT>gmail.com

by Kathleen J. Vigness-Raposa, Chair, Foreign Scholar Travel Award Committee

#### INTERNATIONAL CONGRESS ON UN-DERSTANDING MEDITERRANEAN LANDSCAPES: "HUMAN VS. NATURE"

The Congress took place in Antalya, Turkey during 23-25 October 2014. It was organized by the Landscape Research Society (PAD) of Turkey.

Main supporters were IALE International, IALE Europe, Society for Conservation Biology and the Directorate of Nature Conservation and National Parks of Turkey. Altogether 85 people from 17 countries participated with 43 oral and 16 poster presentations.

A wide range of issues relating to analysis, management and understanding of Mediterranean landscapes were pointed out by the keynote Speakers:

- Theories, methods and applications of landscape ecology by Almo Farina,
- Understanding Landscape-Level Environmental Changes in the Mediterranean by Hakan Alphan
- Mediterranean landscapes between production, consumption and protection goals by Teresa Pinto-Correia,
- New research avenues in Landscape Ecology by Felix Kienast, and
- Landscape Archaeological Studies by Linda Olsvig Whittaker.

The Conference provided an interdisciplinary forum for the exchange of current research, knowledge and practical experience among scientists, decisionmakers and practitioners in the Mediterranean and worldwide. The Regional Directorate from the Ministry of Forest and Water Works attended as a responsible body for the management and protection of natural landscapes in Turkey.

Cutting-edge studies on climate change, multifunctionality of landscape services, landscape change, soundscapes, ecological design and many other issues were touched openly by the participants who raised urgent questions and problems, effective solutions, and outlining ideas for future activities in Mediterranean region.



Congress ending

(Photo: Simge Duga)

The field exursion took place at the southwest Mediterraean coast of Antalya. Two types of tourism sites were visited: Kemer, a mass tourism destination and Çıralı, a small rural settlement. Located in the Olimpos-Beydağları National Park, Çıralı has been a model for sustainable tourism based on family run pensions, organic agriculture and the strong protection



Participants of the Congress in Antalya

(Photo: Semiha Demirbas)

...continued from page 4 (Mediterranean Landscapes Congress)

of natural and historical values which the key features of the Mediterranean region.



Field trip participants

(Photo: Deniz Akman)



Field trip

(Photo: Semiha Demirbas)



Field trip

(Photo: Semiha Demirbas)

by Semiha Demirbaş Çağlayan (Conference Organisation Committee)

#### IALE YOUNG SCIENTIST SUPPORT FOR THE MEDITERRANEAN LANDSCAPES CONGRESS

"First of all, I would like to thank IALE for giving me the opportunity to attend the International Congress on Landscape Ecology, Understanding Mediterranean Landscapes: Human vs. Nature. The conference was very interesting and gave the opportunity to learn about many issues in regards to landscape ecology. As a student of Watershed Management of the University of Tehran, Iran, it was a very enriching experience for me to attend this conference.

To enable participants to embrace innovative landscape ecology practices and researches, a wide range of experts, specialists, researchers and educators chaired and spoke in plenary sessions and in parallel sessions where they discussed and presented the latest information and findings of the themes of the conference.

The first day of the conference started with a speech given by Prof. Almo Farina about theories, methods and applications of landscape ecology in the Mediterranean region. In the next parallel session, which was chaired by Prof. Nilgül Karadeniz, I presented my research entitled "Indigenous Knowledge of Water Management towards Sustainable Development". I mainly discussed an eco-technology named Qanat. It was a valuable opportunity to clarify a traditional water harvesting and management system to participants from all over the world.

The Second day of the meeting started with a presentation by Prof. Felix Kienast entitled "New research avenues in Landscape Ecology". After a coffee break, parallel sessions started in two separate conference halls. I found another opportunity to present my work about Water Applications for Smartphones, New Opportunity for Water Education in the afternoon sessions. Finally, the closing ceremony brought all the participants together again. Short reports and comments presented by key note speakers were interesting for me.

The 25th of October was dedicated to a postconference excursion. We visited "Çirali", a Mediterranean Forest Ecosystem and also a Me...continued from page 5 (IALE Young Scientists Support for the Mediterranean Landscapes Congress)

diterranean Coastal Ecosystem. This tour was a notable opportunity to understand Turkish nature.

In summary, I liked this global event with a scientific atmosphere to discuss recent research in the field of landscape ecology. Again, I give my sincere gratitude to IALE to provide me Early Career Scientist Support."

## by Ali Hamidian (M.Sc. student of Watershed Management University of Tehran, Iran)

"The IALE Early Career Scientist Travel Fund enabled me to attend the congress on Understanding Mediterranean Landscapes: Human vs. Nature which was held in Antalya, Turkey from the 23rd-25th October 2014. As well as providing excellent experience in presenting, the congress also provided me with an important opportunity to network with other scientists working on landscape-orientated issues in the Mediterranean region. The diversity of research fields of congress attendees repeatedly highlighted to me the importance of needing an interdisciplinary approach in tackling many of the issues currently faced in the region. New and exciting research avenues, which I previously hadn't considered within my current research or for my future career aspects, were abound. I was particularly interested in landscape archaeology and related research on ecology of the past, as it provided a fascinating new angle from which I could approach my own research.

I strongly feel attending this conference has opened up several opportunities to continue my research in the Eastern Mediterranean region on completion of my doctoral studies next year, and for that I'm very grateful to IALE for their support."

#### by Andrea Barden (University of Leeds, UK)

"Attending the International Congress on Landscape Ecology gave me the opportunity to share my experiences with people working on landscape planning in various countries from across science, policy or practice. Both the oral and poster presentations gave me a lot of inspiration to further elaborate my research, mainly to discover very important results about application of several modeling tools on the assessment of landscapes changes and consulting activities. Several important topics were presented and many impressive results were discussed such as Jacinta Fernandes who showed the relationships between place identity, anthropomorphism and aesthetic values from a southwestern European coastal natural park landscape and Suha Berberoğlu who presented an environmental risk analysis of Turkey under climate change scenarios using spatial modelling of net primary productivity.

Many other presentations dealt with issues which were new for me and I think they are not being addressed in many other countries. Işıl Kaymaz presented the current state of soundscape research and practice in Turkey as well as Meltem Wallace, who showed intrinsic concepts of soundscapes, framing history, literature and perception. I was totally impressed by the theme of soundscapes and I realized the importance of attention that we should attribute to this field as researchers. Also, the conference gave me the opportunity to meet many researchers, students and professors and exchange information from several backgrounds, such as my meeting with professor ALMO FARINA, who is widely known in the field of landscape ecology in the Mediterranean region. For me the conference was very successful. It gave me a lot of inspiration, which will surely benefit my research and consulting activities.

I am truly grateful for receiving the IALE early career support, giving me the opportunity to exchange my research and expand my professional network! I also want to thank the IALE Turkey committee for their support and trust. I really enjoyed the congress with the field excursion. Finally, I want to thank Semiha Demirbas Caglayan for her efforts and her contribution to the organization of the successful congress. Many thanks also to Prof. Meryem Atik for the information package given to us during the excursion. It amused us to discover the secrets of the beauty of the different landscapes of Antalya. I congratulate all organizers and committee members and wish them good luck and successful continuation!"

## by Donia Jendoubi (University of Carthage, Tunisia)

...continued from page 6 (IALE Young Scientists Support for the Mediterranean Landscapes Congress)

"Thanks to the 'Young career scientist grant' of IALE International I was able to attend the International Congress on Landscape Ecology "Understanding Mediterranean Landscapes: Humans vs. Nature held in Antalya, Turkey. I'm a predoctoral student at the University of Extremadura (Spain), studying the recent spatiotemporal changes in the vegetation, linked to land use and management changes, in Iberian agro-sylvo-pastoral systems (dehesas or montados). Assistance to attend this event was a great opportunity for me, as it was the first time I could present the progress of my work in an international congress. Besides, it was very interesting to meet many landscape ecology scientists working in different countries of the Mediterranean basin. We shared the different perspectives and research approaches used to assess a deeper understanding of our similar landscapes and the current threats that they undergo. I'm confident that the aim of the congress organizers of reinforcing a network between us was met."

## by Estela Herguido, University of Extremadura, Spain

"This is to express my gratitude to the International Association of Landscape Ecology to provide me the Early Career Scientist Support in order to participate in the International Congress on Landscape Ecology, Understanding Mediterranean Landscapes: Human vs. Nature. This scientific conference brought together researchers, scientists, professors and students from all over the world to Antalya, Turkey in October 2014.

As a doctoral student of the "Combating desertification" and undergraduate course instructor at University of Tehran, Iran, I found this congress a very valuable environment to exchange recent findings and constructive ideas about landscape ecological topics. It was a dynamic and collaborative meeting to connect to well-known scientists in this field. Key note speeches, oral and poster presentations were unique opportunities to be informed about new advances in the subject of landscape ecology. I found the event an excellent and progressive congress and I hope to attend future IALE meetings."

## by Salman Zare (PhD student, University of Tehran, Iran)

#### IALE-IUFRO WORKING GROUP SESSION AT THE 24<sup>TH</sup> IUFRO WORLD CONGRESS

"The benefits of introducing the ecosystem service concept in forest management and planning at different spatial scales" was the title of the technical session organized by Sandra Luque (IRSTEA, France) and Christine Fürst (ZEF Uni Bonn, Germany) within the framework of the XXIV World Congress of the International Union of Forest Research Organizations (IUFRO) – the world's network of forest science. The session was an effort from the IALE-IUFRO working group with participation from oral presentations and posters from both communities.

The IUFRO Forest Landscape Ecology Working Party (<a href="http://iufrole.wordpress.com/">http://iufrole.wordpress.com/</a>) in association with the IALE community, the European Land Institute (ELI) and the Ecosystem Services Partnership (ESP) joined efforts to organize a full day session under the IUFRO thematic area of Forest for People.

The 24<sup>th</sup> IUFRO World Congress took place in Salt Lake City, Utah, USA (5-11<sup>th</sup> October) under the title "Sustaining Forests, Sustaining People: The Role of Research" reflected both the importance to promote global cooperation in forest-related research and to enhance the understanding of the ecological, economic and social aspects for forests and trees; as well as to disseminate scientific knowledge to stakeholders and decision-makers and to contribute to policy and on-the ground forest management.

The congress was a success with nearly 4000 researchers, students and stakeholders from around 100 countries that participated in more than 170 technical and sub-plenary sessions sharing research and discussing the leading issues facing the world's forests.

The session highlighted the incorporation of the ecosystem service (ES) concept into the framework of forest management. The ES concept within this framework stems from a need to create a more holistic perception of forests, recognizing not only their economic value, but also their cultural and ecological values.

...continued from page 7 (IUFRO World Congress)

The session provided an overview of the ES concept and the idea of balancing trade-offs between different services to obtain multifunctional ecosystems. As a relatively new concept, there is still uncertainty regarding the best way to integrate ES into forest management. It was stressed that some of the key factors for future forests assessments using the ES concept will be a landscape approach, regionally tailored management, and avoidance of a single dominant management.





One of the field trips during the conference to the Arches National Park (Photos: Christine Fürst)

The ES concept has diverse applications in management practices. Susanne Frank and Christine Fürst have been using software called GISCAME that allows them to simulate different management sce-

narios over relatively long time scales. By inputting regional ES and indicators, along with other forest parameters, into the software, they are able to create an integrated ES assessment to model how forests will change over time in response to different management strategies. This provides a useful method with which to illustrate trade-offs and compare alternatives.

Other researchers have integrated the ES concept into studies at the "ground-level", working with groups of stakeholders from different backgrounds to determine which ES they value most. Per Angelstam and collaborators from Sweden focused on perceived benefits from boreal landscapes in Scotland, Norway, Sweden, and Russia. He and his colleagues organized focus groups in each country and found that the role of different ecosystem services was proportionally different across the study regions. For example, there was a greater importance placed on provisioning ES in Russia, while the other countries ranked cultural





Another of the field trips during the conference to Antelope Island State Park, in the Great Salt Lake (Photos: Sandra Luque)

...continued from page 8 (IUFRO World Congress)

Mark Johnston from Canada provided examples of additional case studies focused on facilitating discussion among local partners in making management decisions. Johnston discussed the Model Forest Network, which includes about 60 model forests worldwide. The goal of this network is to combine the diverse social, economic, and cultural needs of local communities into long-term sustainable forest management plans. The model forests themselves do not have jurisdiction over the lands, but rather, they provide a framework through which partner-based discussions of local issues can occur.



One of the field trips during the conference to Antelope Island State Park, in the Great Salt Lake

Johnston and Angelstam both spoke of the need for an improved understanding between diverse groups of stakeholders in integrating the ES concept. The Model Forest Concept helps to dissolve some of those barriers.

While the ES concept is relatively new, its use in research to date has shown that it is a useful, and ultimately necessary, component of forest management plans. Ecosystem services can be challenging to quantify because many of them do not translate easily to a monetary value. However, if these are not all taken into account, we risk losing many of the other benefits that forests provide. The main conclusion of the session is that Ecosystem Services need to be incorporated into Forest Management at different scales and in different contexts.

by Sandra Luque (IRSTEA, France), based on the IUFRO blog from Allison Chan

#### GLOBAL CHANGE RESEARCH SYMPOSIUM 2014: HUMAN AND ECOSYSTEM RESPONSE TO GLOBAL CHANGE: EVIDENCE AND APPLICATION

The Global Change Research Symposium 2014, held in Ostuni, Brindisi, Southern Italy from September 16-18, 2014, brought together 108 delegates from 28 countries of all continents (except Antarctica). In this event, delegates were able to exchange experiences and knowledge in various sessions including one pre-conference workshop on Image Pattern Analysis (Guidos Toolbox 2.0) organized by Dr. Peter Vogt, JRC, Italy.

The thematic sessions covered a broad range of topics including coupled natural and human systems (CNHS). The contributions provided examples of successful ecological research conducted across regions and scales as well as implications on which to base ecosystem and landscape management. The contributions were organized into six main sections that focused on:

- (A) Coupled human and natural systems;
- (B) Global change ecology;
- (C) Remote sensing of global change;
- (D) Ecosystem modelling and management:
- (E) Green infrastructure and biodiversity; and
- (F) Ecosystem services evaluation & policy making.

Moreover, we had the opportunity to have four outstanding researchers in the plenary sessions: Emilio F. Moran, Center for Global Change and Earth Observations, and Department of Geography, Michigan State University; Piermaria Corona, Director of the Forestry Research Center of the Italian Agricultural Research Council (CRA) and Full Professor of Forest Mensuration and Management, University of Tuscia, Italy; Frank Martin Seifert, European Space Agency at ESRIN/Frascati, Italy; and David A. Coomes, Head of the Forest Ecology and Conservation group at the Plant Sciences Department, University of Cambridge, UK.

The IALE and IUFRO Forest Landscape working Groups supported this conference that brought members from the IALE-IUFRO Group. In all, delegates

...continued from page 9 (Global Change Research Symposium)

had a productive exchange and discussion on global change issues and landscape ecology whilst they enjoyed their stay in a Mediterranean-landscape hotspot. This Symposium had an important impact since southern Italy has great evidence of the coupling between natural and human systems.



From left to right: Jiquan Chen, Emilio F. Moran, Frank Martin Seifert, David Coomes Raffaele Lafortezza, Jiaguo Qi

During the Conference dinner (Sept. 18, 2014), 12 students received the Student Attendance Award thanks to the following sponsors and contributors: Università degli Studi di Bari; Center for Global Change and Earth Observations, Michigan State University, USA; Hexagon Geospatial Integraph; Planetek Italia s.r.l.; Aerosigma s.r.l.; Ferrotramviaria s.p.a.; Natuzzi s.p.a.; AMIU Taranto s.p.a.; and Euro Masters Studies s.r.l.





Recipients receiving the Student Attendance Award



Symposium participants during the sightseeing tour in Polignano.

...continued from page 10 (Global Change Research Symposium)

This Symposium was organized by Raffaele Lafortezza (Department of Agriculture and Environmental Science, University of Bari, Italy) and Jiquan Chen (CGCEO, Michigan State University, USA) and supported by IALE. The scientific committee was led by Dr. Jiaguo Qi (Head of CGCEO, Michigan State University).

The next Global Change Research Symposium will be in East Lansing, Michigan, US, on October 2015, looking forward to see many members from the IALE-IUFRO community again there!

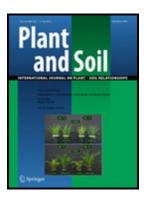
More information at: http://www.global2014.it

by Raffaele Lafortezza (University of Bari, Italy) and Jiquan Chen (CGCEO, Michigan State University, USA)

#### CALL FOR ABSTRACTS – NEW 2015 SPECIAL ISSUE IN PLANT AND SOIL

Modified Soils and Designed Substrates for Improved Urban Green Infrastructure and Ecosystem Services

This proposed PLSO Special Issue will cover an emerging and international topic in the modification and improvement of urban ecosystem functioning through amendment and modification of existing urban soils as well the introduction of novel substrates for specific green infrastructure function and ecosystem services.



This Special Issue seeks to enhance our mechanistic understanding of plant-soil interactions in a modified and designed urban ecosystem context. Urban regions, and the built and landscaped environment within them, play an increasingly significant role in

global sustainability as over half of the global population lives in cities and this is set to increase. Urban landscapes and the human activities within them are responsible for a large fraction of global resource consumption and in turn regional and global environmental impacts.

At the same time, growing cities face increasing social, ecological and sustainability challenges. Increasing the quantity and improving the vigour of vegetation within cities is one way of addressing many of these challenges, such as heat, mental health and wellbeing, pollution, biodiversity and stormwater. Inherent to the performance of vegetation systems in cities is the quality and properties of the soil or substrate that they grow in. Furthermore, the soil and substrates themselves can perform valuable ecosystem services beyond that provided by the vegetation.

Improving and modifying the properties of urban soils or damaged soils can optimise and extend the ecosystem service function of these green spaces and brown field spaces. Similarly, the specific design and development of substrates for novel green infrastructure systems can further extend the ecosystem service possibilities into, and onto, previously underutilised urban built form and space. Making use of local urban resources and waste streams to modify these soils and to develop these substrates can provide additional sustainability benefits, providing a closed loop of urban waste utilisation for improved urban ecosystem function which reduces urban environmental impact – akin to a sustainable 'urban metabolism'.

In this PLSO Special Issue we aim to dig deeper into this fascinating and emerging field of urban ecosystem research. We will encourage manuscripts with a focus evidence-based research with quantitative data. Of particular interest are papers that demonstrate significant impact on urban green space performance and ecosystem service at a site, precinct or city scale.

The specific objectives of the SI are to present international scientific studies from a range of climatic conditions to demonstrate the opportunities, advances and benefits delivered from:

urban soil modification and amendment for improved plant growth, nutrient cycling and hydrological performance.

...continued from page 11 (New Special Issue in Plant and Soil)

- urban substrate development, use and performance in green infrastructure systems, e.g. green roofs, biofilters, structural soils.
- the use of urban waste streams as a resource for soil modification or substrate development.

We invite author(s) to provide abstracts (300 words) by **31 January 2015**, to be emailed to the Guest Editors. Criteria for evaluating submitted abstracts are presented in the scope above.

Approved abstracts will be invited to submit full manuscripts between 20 February and 31 April 2015.

More information:

http://thegirg.org/urban-soils-and-substrates-special-issue

Guest Editors: **Stephen Livesley** (Green Infrastructure Research Group, The University of Melbourne, Australia), **Tim Fletcher** (Waterway Ecosystem Research Group, The University of Melbourne, Australia) and **Bryant Scharenbroch** (The Morton Arboretum, Illinois, USA)

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#### **Bulletin Deadline**

Vol. 33 no.1: March 08, 2015

PLEASE: Send your contributions to the Bulletin Editor Benjamin Burkhard bburkhard@ecology.uni-kiel.de

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The IALE Bulletin is distributed several times a year to the members of IALE. IALE - the International Association for Landscape Ecology

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IALE International on the Internet: IALE International: www.landscape-ecology.org