



## IMCG Bulletin: April 2015

### Word from the Chair



[www.imcg.net](http://www.imcg.net)

Dear mire friends

Our journal: *Mires and Peat*, has done well last year with its inclusion in *Web of Science*. However, we need to ensure that we keep up a healthy monthly publishing rate of at least two papers per month. We have fallen short of this objective in the past few months. We urge you therefore to consider *Mires and Peat* as journal of choice.

The IMCG network is only as strong as its members are active. Let's hear more about your work and events in your district, country or region! Do you know your Main Board members? Read more about IMCG stalwarts Eduardo, Line and Olivia in this issue of the IMCG Bulletin.

Contributions for the IMCG Bulletin can be sent by 25 April 2015 to Piet-Louis Grundling - [peatland@mweb.co.za](mailto:peatland@mweb.co.za).

### Get to know your Main Board members - Featuring:



#### **Eduardo García-Rodeja Gayoso**

Eduardo is a professor in Soil Science and currently head of the Department of Soil Science and Agricultural Chemistry, University of Santiago de Compostela (USC), Spain.

Since 1995, his research is focused on peatland ecology and biogeochemistry and the use of peat bog archives as records of environmental change. Although the peatlands of Galicia (NW, Spain) are the main objective of his work, he is also involved in studies in other mires mainly of Spain and South America.

Eduardo has been member of the IMCG since 2005, and IMCG Main Board member since 2010. He resides in Santiago de Compostela (Spain) and teaches Geology and Pedology at the faculties of Geography and Biology of the USC.



**Line Rochefort**

Line is a professor in the Department of Plant Sciences at Université Laval, a position she has held since 1992. She is one of the pioneers and leaders in research on restoration ecology of peatlands. Her academic and professional career took her around the world and she is known within the international community for her research on wetlands.

In 1993 Line founded the Peatland Ecology Research Group (PERG), also called *Groupe de recherche en écologie des tourbières* (GRET) in French.



This group brings together researchers from different universities, Canadian industrial peat partners, and federal and provincial government agencies, creating a fertile and stimulating ground for student involvement. Line has instigated a whole new stream of research in the peat industry, the development of techniques for restoration of mires after peat extraction. She has been the North American representative of the International Mire Conservation Group since 2004'

**Olivia Bragg**

Olivia is a Research Fellow in the School of Environment, University of Dundee, Scotland (UK) but due to family connections (not least a new grandson) can often be found in the south English counties of Buckinghamshire and Hampshire nowadays.

She first set up a Mire Ecohydrology research group in the Dundee University's Biological Sciences department in 1985, but has since been academically re-classified as a geographer. Whilst her core expertise stems from working on Scottish raised and blanket bogs and, latterly, other Scottish wetland types including rivers and lakes, she has visited and/or worked on peatlands across the world from the Arctic to south-east Asia, South America and Australia.



Olivia was invited to join IMCG in 1992 (Switzerland field symposium), was formerly a member of the Decision Making Group, and has been a Main Board member since 2002. In 2004 she accepted a challenge to lead development of the free peer-reviewed journal *Mires and Peat* (as a joint project of IMCG and IPS) and has been Editor-in-Chief of the journal since it first went online in January 2006. The project's goal of qualifying for the Thomson Reuters Master Journal List was achieved in 2014. Olivia also recently undertook responsibility for locating all existing IMCG members in the UK, Ireland and Iceland and at the last count had established contact with 80 'UK-IR-IC' members along with six individual and three institutional followers.



## Mires and Peat

Olivia Bragg ([o.m.bragg@dundee.ac.uk](mailto:o.m.bragg@dundee.ac.uk))

### New articles in *Mires and Peat*

*Mires and Peat* is the open-access peer reviewed journal of IMCG and the International Peat Society (IPS). Find it online at <http://mires-and-peat.net/> and in the *Thomson Master Journal List (Web of Science)*.

One new article appeared in Special Volume 15 *Mountain Peatlands* in April:

*Fens of the Sierra Nevada, California, USA: patterns of distribution and vegetation* (E.C. Wolf and D.J. Cooper)

Members of the IPS and IMCG are urged to support *Mires and Peat* with their contributions as we need to maintain the publication rate that is required to qualify our very special journal for its place in *Web of Science* and the now very close objective of an Impact Factor.

The Editors are always happy to receive new manuscripts on any topic relating to mires, peatlands and peat. Please send these to [o.m.bragg@dundee.ac.uk](mailto:o.m.bragg@dundee.ac.uk), for:

- friendly editorial management by eminent peatland specialists (O.M. Bragg, R.S. Clymo, S.N.P. Glatzel, A.P. Grootjans, P.M. Jones, J.O. Rieley);
- minimal publication delays (average turnaround time from submission to publication is currently less than 230 days); and
- free global exposure of your work in an ISI journal.

## News from our regions

### Oceania

Bev Clarkson ([Clarksonb@landcareresearch.co.nz](mailto:Clarksonb@landcareresearch.co.nz))

#### New Zealand: Restoration of native vegetation in willow-invaded mires

Grey willow (*Salix cinerea*) is a troublesome invasive species in many New Zealand mires, as it spreads rapidly and displaces native species. A restoration experiment was established in April 2015 at Whangamarino Wetland, a large Ramsar site, to develop best practice approaches for mire restoration. Kahikatea (*Dacrydium dacrydioides*) is one of the few native wetland trees that can overtop and hence out-compete the willow, but there is very little seed source remaining in the wetland. Kahikatea re-establishment in willow-dominated areas appears to be also hampered by relatively slow growth rate and shading by the willow canopy. The restoration experiment involved pre-spraying (of herbicide by helicopter) a willow-dominated block and planting kahikatea seedlings c. 1 m tall, individually and in clumps, under various treatments.

The treatments were based on small scale community group approaches, e.g., manually-maintaining light wells, and large scale whole-wetland approaches, e.g., pulse control when willow canopies close. The experiment will be long-term and a collaboration between the research institutes, Landcare Research and National Institute of Water and Atmosphere; and the Department of Conservation.



*Planting a clump of kahikatea in a light well treatment at Whangamarino wetland*

## South Africa

Piet-Louis Grundling ([peatland@mweb.co.za](mailto:peatland@mweb.co.za))

Southern Africa is experiencing a severe drought at present. Not only are crops such as maize failing, even natural systems such as mires are under pressure. This is especially evident in areas where commercial plantations have been planted in or around mires, such as the Vazi Pan mire in Maputaland, KwaZulu-Natal Province, which were visited by the IMCG in 2004.



*The surface layer of peat in the the Vazi Pan mire on fire*



*Ab Grootjans inspecting the Vazi Pan mire on fire during his recent visit to the region in April 2015*

Peat fires in plantation areas result from fires lit by honey hunters to smoke out bees from their hives. The fires spread from surface vegetation to the desiccated peat (as a result of ground water lowering by exotic trees such as Eucalyptus) and could burn for months if fires are not isolated and extinguished.



## News from all over

### **E-book on bog management and conservation**

It is possible to view an electronic version of the 2<sup>nd</sup> edition of the book "Conserving bogs – The management handbook" by the authors Stuart Brooks, Rob Stoneman, Astrid Hanlon and Tim Thom. This is a handy tool from the UK that provides methods and techniques for the management and conservation of peatlands. To have access to the e-books, here is the link:

[http://issuu.com/peat123/docs/conserving\\_bogs](http://issuu.com/peat123/docs/conserving_bogs)

### **RSPB fights plans for wind farm on peatland in Scotland**

A controversial £200million wind farm in the Highlands would not become carbon neutral for more than two decades, it has been claimed

<http://www.newscotland.com/news/rspb-fights-plans-for-wind-farm-on-peatland>

### **Peatland fires in Sumatra inflict trillions of Rupiah in losses**

The organizers of a study have found that peatland fires in three regencies in Jambi in 2014 caused Rp 44.714 trillion (US\$3.4 billion) in losses and have offered to supply an agriculture system to prevent further damage.

The Forestry School of the Bogor Institute of Agriculture (IPB) and the Indonesian Conservation Community (KKI) Warsi recently conducted the Peat Fire Impact Valuation study in West Tanjung Jabung, Tanjung Jabung and Muarojambi, and found that the fires had damaged 628,627 hectares of peatland in the three regencies, causing huge losses equalling 15 times the provincial budget for this year of Rp 3.5 trillion.

<http://hamparan.net/index.php/news-even/artikel/26-peatland-fires-inflict-trillions-of-rupiah-in-losses>

### **VCS releases robust accounting framework for REDD+ Projects in Tropical Peatswamps**

The Verified Carbon Standard (VCS) has approved a [comprehensive carbon accounting methodology](#) for REDD+ projects in tropical peat swamp forests. This methodology for the first time provides a practical and scientifically robust framework for quantifying emission reductions from peatland conservation and restoration efforts, an essential prerequisite to catalyzing climate finance for these highly threatened ecosystems.

The framework is a revision to VCS methodology VM0007 (REDD+ Methodology Framework (REDD-MF)) and enables carbon accounting for projects that address deforestation of tropical peat forests and projects aimed at restoring damaged peatlands. The methodology now includes REDD+ activities for avoided conversion and forest rehabilitation on all forest types, including forested peatlands.

This comprehensive revision introduces six new modules for the determination, quantification and monitoring of the baseline carbon stock changes and project emissions associated with peatland conservation and restoration and afforestation, reforestation, and re-vegetation activities. Particularly of note is a streamlined procedure for crediting avoided emissions from peat fires, a significant source of baseline emissions. It provides new and revised modules and tools to quantify changes in all carbon pools and GHG fluxes in tropical peatland areas.

Globally peatland soils cover only 3% of the land surface but store twice as much carbon as all the world's forests.<sup>[1]</sup> When drained, peatlands become large sources of greenhouse gases (GHG) and are susceptible to fire. Over the last decades, tropical peat swamps have been subject to rapid deforestation and drainage for agriculture - predominantly for oil palm and pulp-wood plantations. In Indonesia peatland conversion contributes towards around half of the country's GHG emissions.

The revision was undertaken by [Permian Global](#) (an investment firm dedicated to the protection and recovery of tropical rainforest to mitigate climate change), [Wetlands International](#) (a conservation NGO), [Silvestrum](#), [Greifswald University](#), [Remote Sensing Solutions GmbH](#), [Deltares](#), and [Alterra WUR](#), and validated under the VCS Standard by Environmental Services Inc. and DNV - GL.



One of the first projects to apply this revised methodology will be the Katingan Peat Forest Restoration Project ([www.katinganproject.com](http://www.katinganproject.com)), which aims to protect and restore around 150,000 ha of peatland forest in Central Kalimantan, Indonesia, led-by the Indonesian company PT Rimba Makmur Utama. Stephen Rumsey, Chairman of Permian Global: “We are very pleased with the approval of this methodology, as it enables robust carbon accounting for REDD+ projects in tropical peat swamp forests and encourages investment in peatland conservation and restoration.”

Marcel Silvius, Wetlands International: “This opens the door for investors to reduce the huge GHG emissions associated with peatland loss, a major investment opportunity with large benefits for climate, biodiversity and for enhancing sustainable livelihoods of local people in the project areas.”

<http://www.wetlands.org/News/tabid/66/ID/4110/PRESS-RELEASE-VCS-releases-robust-accounting-framework-for-REDD-Projects-in-Tropical-Peatwamps.aspx>

## Symposia

### VI International Meeting on the Biology of Sphagnum



**Khanty-Mansiysk, Russia; August 15-24, 2016**

The UNESCO Chair “Environmental Dynamics and Global Climate Change” of Yugra State University, Khanty-Mansiysk, Russia is happy to host the VI International Meeting on the Biology of Sphagnum of International Association of Bryologists on August 15-24, 2016. You are warmly invited to visit the beautiful region of Yugra in West Siberia rich in both nature and culture. Being famous for its extensive oil-production and traditional lifestyle of the indigenous reindeer herding peoples of Khanty and Mansi, Yugra offers many other attractions. Almost half of the territory is covered with the coniferous and mixed boreal forests, with another 50 % covered with wetlands where 34 species of Sphagnum mosses occur.

The program of the VI International Meeting on the Biology of Sphagnum will include the conference and trips to the forests and mires around Khanty-Mansiysk and on the way to the natural park “Kondinskiye Lakes”, 450 km to the west. During these trips almost all the diversity of Sphagnum mosses of the boreal forest zone of West Siberia can be observed including widespread species like *Sphagnum fuscum*, *S. angustifolium*, *S. balticum*, *S. papillosum* and typical species: *Sphagnum centrale*, *S. warnstorffii*, *S. jensenii*, *S. lindbeggii*, *S. obtusum* including two species from the Red List of Yugra region, *Sphagnum subfulvum* and *Sphagnum tenellum*.

#### The preliminary program:

15 – 17, August – Conference, including a 1-day field excursion;  
 18 – 19, August – Field excursions 20-40 km around Khanty-Mansiysk;  
 20 – 23, August – Field trip to the natural park “Kondinskiye Lakes”.

The suggested topics for the conference are biology, ecology and floristic diversity; taxonomy, genetics and physiology, and possibilities of actual use of Sphagnum mosses.



You are welcome to come for the entire program or just the conference days (15-17, August). We kindly request you to register and to decide on topics of the conference till the 1<sup>st</sup> of September, 2015. Registration forms and additional information is available here: <http://mukhrinostation.com/sphagnum-symposium-2016/>. Deadline for submission of the papers is the 1<sup>st</sup> of April, 2016.

The registration fee is 300 euro for the conference and 1-day field excursion (15-17 August) and 500 euro for the entire program. The fee for students and PhD students is 150 and 250 euro respectively. The registration fee includes meals, transportation and accommodation at field stations during field trips (accommodation in Khanty-Mansiysk can vary from student halls to city hotels and should be cost additionally).

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**Invitation to attend the 10th INTECOL International Wetlands Conference**



This conference will bring together 1100 wetland scientists from around the world in the pleasant town of Changshu, not far from Shanghai, China. The general theme of the conference will be “Hotspots of Biodiversity and Ecosystem services under global Changes”.

Wetland scientists are invited to submit symposium proposals. Please be advised that a number of conveners of high-quality symposia will be sponsored, after being rated by the international scientific committee of the conference. These symposium proposals are due June 30, 2015 and should be submitted to the email address [info@intecol-10iwc.com](mailto:info@intecol-10iwc.com). The chief organizer is Prof. Shuqing An.

More detailed information can be found on the website: <http://www.intecol-10iwc.com>.

**Peatland conservation relevant papers**

Collected by Hans Joosten: [joosten@uni-greifswald.de](mailto:joosten@uni-greifswald.de)

1. Ecosystem resistance in the face of climate change: a case study from the freshwater marshes of the Florida Everglades: <http://www.esajournals.org/doi/abs/10.1890/ES14-00404.1>
2. Peatland vascular plant functional types affect methane dynamics by altering microbial community structure: <http://onlinelibrary.wiley.com/doi/10.1111/1365-2745.12413/abstract?campaign=wolacceptedarticle>
3. Hydrological controls on ecosystem CO<sub>2</sub> and CH<sub>4</sub> exchange in a mixed tundra and a fen within an arctic landscape. Part 2. Modelled impacts of climate change: <http://onlinelibrary.wiley.com/doi/10.1002/2014JG002889/abstract?campaign=wolacceptedarticle>
4. Is there an impact of climate change on soil carbon contents in England and Wales?: <http://onlinelibrary.wiley.com/doi/10.1111/ejss.12253/abstract?campaign=wolearlyview>
5. The origins of a *Nardus stricta* grassland through soil charcoal analyses: Reconstructing the history of a mountain cultural landscape (Mont Lozere, France) since the Neolithic: <http://www.sciencedirect.com/science/article/pii/S1040618214009227>



6. Evolution of niche preference in *Sphagnum* peat mosses:  
<http://onlinelibrary.wiley.com/doi/10.1111/evo.12547/abstract>
7. Rain events decrease boreal peatland net CO<sub>2</sub> uptake through reduced light availability:  
<http://onlinelibrary.wiley.com/doi/10.1111/gcb.12864/abstract?campaign=woletoc>
8. Significant nonsymbiotic nitrogen fixation in Patagonian ombrotrophic bogs:  
<http://onlinelibrary.wiley.com/doi/10.1111/gcb.12849/abstract?campaign=woletoc>
9. Overriding control of methane flux temporal variability by water table dynamics in a Southern Hemisphere, raised bog: <http://onlinelibrary.wiley.com/doi/10.1002/2014JG002844/full>
10. Temporal control on concentration, character, and export of dissolved organic carbon in two hemiboreal headwater streams draining contrasting catchments:  
<http://onlinelibrary.wiley.com/doi/10.1002/2014JG002814/full>
11. Identifying multiscale zonation and assessing the relative importance of polygon geomorphology on carbon fluxes in an Arctic tundra ecosystem:  
<http://onlinelibrary.wiley.com/doi/10.1002/2014JG002799/full>
12. Temperature, oxygen, and vegetation controls on decomposition in a James Bay peatland:  
<http://onlinelibrary.wiley.com/doi/10.1002/2014GB004989/full>
13. Peatlands, climate change mitigation and biodiversity conservation: An issue brief on the importance of peatlands for carbon and biodiversity conservation and the role of drained peatlands as greenhouse gas emission hotspots [http://www.diva-portal.org/smash/record.jsf?dswid=4279&aq=\[\[\]\]&aq2=\[\[\]\]&sf=all&aqe=\[\[\]\]&af=\[\[\]\]&searchType=LIST\\_LA\\_TEST&sortOrder=author\\_sort\\_asc&onlyFullText=false&noOfRows=50&language=en&pid=diva2%3A806688&dspwid=4279&jfwid=4279](http://www.diva-portal.org/smash/record.jsf?dswid=4279&aq=[[]]&aq2=[[]]&sf=all&aqe=[[]]&af=[[]]&searchType=LIST_LA_TEST&sortOrder=author_sort_asc&onlyFullText=false&noOfRows=50&language=en&pid=diva2%3A806688&dspwid=4279&jfwid=4279)

Please send your contribution to the **IMCG Bulletin** by the 25<sup>th</sup> of each month:  
[peatland@mweb.co.za](mailto:peatland@mweb.co.za)