IMCG Bulletin: Nov 2013

INTERNATIONAL MIRE CONSERVATION GROUP

www.imcg.net

Word from the Chair

Dear mire friends

I am writing to you from Australia. It's my 1st time here and what a privilege. This is a beautiful continent with fascinating mires. Already very interesting debates are developing about different types of mire and peatland, and the terminology we use to discuss our findings.

There seems to be a strong feeling that mires of the Southern Hemisphere (or at least the Australian ones) might not fit into the classifications systems of the North. I am not sure if we can resolve these interesting challenges on this IMCG Filed Symposium, but we will certainly enjoy the debate!!

We are certainly interested in your opinion on this topic!! Keep safe and enjoy the news from down-under!!

Please send any contributions for the IMCG Bulletin by the 20th of each month.

REGISTRATION: 2014 IMCG General Assembly and Field Symposium: Belarus July 2014

The 2014 IMCG Field Symposium, Congress and General Assembly will be held in Belarus from 14-26 July 2014. The Field Symposium will visit the wide variety of pristine and degraded peatlands all over Belarus, look at the results of the recent large-scale rewetting projects and discuss the perspectives of the new management initiatives taken in connection to paludiculture.

Registration details will be announcement in December by Hans Joosten (joosten@uni-greifswald.de).

Mires and Peat: *a new Special Volume planned*

Our editor, Olivia Bragg, wants to finalise a special volume on "High Altitude Mires and Peatlands". Do you have a contribution to make? Please contact Olivia urgently at: o.m.bragg@dundee.ac.uk

Support our journal and submit your research results to: http://www.mires-and-peat.net/

News received from IMCG Regions

The November and December Bulletins will focus on Australasia.

Australasia by Bev Clarkson (Clarksonb@landcareresearch.co.nz)

Australia

IMCG field symposium: south-east Australia and Tasmania

At the time of printing the IMCG Australian field symposium kicked off with 19 delegates in Katoomba, Blue Mountain National Park, Australia. Nine IMCG members from 4 different continents and islands joined the locals on 1 December 2013. Jennie Whinam and her team had been busy organising an interesting programme for the period1-12 December 2013, which showcases some remarkable and unique mires down-under, such as sandstone swamps, montane peatlands, cushion bogs and buttongrass moorlands. A peatland symposium at

Australia National University on 6 December will enable sharing of research and knowledge from around the world to address specific peatland management issues related to Australian mires. http://www.imcg.net/pages/events/australia-field-symposium-2013.php?lang=EN

IMCG members will join the Ecological Society of Australia's Peatland Forum for a symposium at the University of Tasmania following the IMCG field Symposium on 12 December 2013. The objective of this forum meeting is to enable exchange of research and knowledge between IMCG and local ecologists.

New Zealand

Waiwhakareke Natural Heritage Park, Hamilton

Restoration of a small peat lake (2 ha) and surrounding wetland within a 60 ha catchment reserve of Hamilton city boundary commenced in 2004. The objective of the project is to reconstruct the range of ecosystems that were characteristic of the Hamilton district. To date, 22 ha have been planted by the Hamilton City Council, community groups, and the public. Among the ecosystems being reconstructed is the threatened *Sporadanthus ferrugineus-Empodisma robustum* restiad bog type that was originally widespread throughout the Hamilton district and wider Waikato region. http://waiwhakareke.co.nz/

Fraser Island

Who might visit your peatland?

Pre-symposium excursion to Fraser Island: Report back

A small group of ICMG members visited the patterned mires on Fraser Island, Queensland, the largest sand island in the world, on 26 November 2013. The aim was to survey the unusual fens, understand species-environmental patterns, and assess their significance on a global scale. The trip was organised by Richard Lindsay, FIDO (Fraser Island Defenders Organisation), and team. http://www.imcg.net/pages/events/fraser-2013.php . A small research team (Angelina Bedolla, Olivia Bragg, Ab Grootjans and Richard Lindsay) remained behind to study this system further. The most significant finding thus far was that these patterned mires were not bogs but fens.

Peatlands and the Cinderella Syndrome: the invisible fens of Fraser Island by Richard Lindsay (R.Lindsay@uel.ac.uk)

In 1996, the Ramsar Convention held its 6th Conference of Parties in Brisbane, Australia, celebrating 25 years of the Convention. As part of these celebrations, the Conference agreed to accept a number of plenary presentations which highlighted areas for future improvement and enhancement of Ramsar's role in conserving the world's wetlands. Clayton Rubec organised a side event funded by the Canadian Government to look at the role of Ramsar specifically in relation to what had been achieved for peatlands and peatland conservation. What emerged from this workshop were two facts: firstly, peatlands were the major terrestrial wetland type throughout the world, and secondly, the Ramsar List of internationally wetland sites did not reflect this. In fact the Ramsar list was woefully inadequate. I was invited to speak in a plenary session about these results and suggested that perhaps Ramsar suffered from the same peatland blindness which appeared to afflict society as a whole – peatlands were invisible. In response, the Conference agreed a Resolution that encouraged contracting parties to do far more for peatlands than they had so far managed to achieve.

The need for such positive action, and the invisible nature of peatlands, was dramatically demonstrated on the post-Conference tour to Fraser Island, off the Queensland coast. The five-day tour was led by John Sinclair, and focused on the range of natural wonders that Fraser Island – the world's largest sand island – had to offer. The tour included a flight to Lady Elliott Island, on the Great Barrier Reef, and an overflight of Fraser Island itself.

No mention had been made of 'peatlands' during our time on Fraser Island, so imagine our surprise when a series of what seemed to be bog pools and fen strings slid by below. On landing, the three of us on the tour who were peatland specialists – myself, David Stroud and Jim Ryan – asked about these apparent peatlands and were told that there were no records for peatlands on Fraser Island. We prevailed on John Sinclair to visit the area on the ground, where we discovered that the area was indeed peatland. However, they had been dismissed until now as rather un-interesting 'wet heathlands'. Indeed it emerged that the areas were considered to be so devoid of interest that they had been explicitly excluded from the boundary of the new Great Sandy Strait Ramsar Site. The boundary of this site terminates just south of the fen systems discovered at Moon Point – thereby highlighting all too clearly the invisibility and Cinderella nature of these major peatland systems!

FIDO and IMCG members during a briefing session at Fraser Island base camp: November 2013

Spot the visitors to the Moon Point mires, Fraser Island? It can only be IMCG! November 2013

Have you noticed any recent interesting visitors in a mire– please send us a photo: peatland@mweb.co.za?

Southeast Asia by Azura Ahmad azura@gec.org.my)

There are two key ongoing peatland conservation programmes in Southeast Asia, the ASEAN Peatland Forests Programme (APFP) funded by GEF through IFAD; and Sustainable Management of Peatland Forests in Southeast Asia (SEApeat), supported by the European Union. More information can be found at http://www.aseanpeat.net/index.cfm?&menuid=38 and http://www.aseanpeat.net/index.cfm?&menuid=73 respectively.

The ASEAN Peatland Management Strategy (APMS) was recently updated. The booklet can be downloaded via this link: http://www.gecnet.info/view_file.cfm?fileid=1152

The main changes (mainly minor/technical) are:

- Updating to include changes in related ASEAN structures and governance
- Slight adjustment and updating of text on context and background issues
- Strengthening of text on engagement of private sector and local communities
- Streamlining, updating and clarifying some of the proposed actions in the action plan matrix, building on experience and implementing APMS and in developing associated National Action Plans and inclusion of selected emerging issues

The 14th Informal ASEAN Ministerial Meeting on the Environment and 9th Meeting of the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution took place on 25 September 2013, Surabaya, Indonesia. Ministers responsible for the environment from ASEAN Member States (AMS) held their 14th Informal ASEAN Ministerial Meeting on the Environment and 9th Meeting of the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution on 25 September 2013 in Surabaya, Indonesia. The Ministers reviewed regional cooperation on a number of environmental issues, in particular the related actions in the environmental sustainability section of the ASEAN Socio-Cultural Community (ASCC) Blueprint, and discussed new initiatives to further promote regional environmental cooperation.

Delegations heads holding hands to symbolize ASEAN solidarity

A mini exhibition showcasing the progress of peatland conservation in Southeast Asia

Europe

EU-LIFE Bog restoration under attack: Report back *by Jan Sliva (sliva@wzw.tu.de)*

The meeting of representatives of the Directorate-General Environment of the European Commission with Gerd Oosterkamp, Wim van Schlie, Roger Daniels and Edgar Karofeld took place in Brussels on 7 November 2013 (as was announced in the Bulletin of September 2013). A four-hour-meeting was led by Angelo Salsi (Head of Unit E3. – LIFE Nature) and Micheal O'Briain (Deputy Head of Unit B3.- Nature) and was attended by several desk officers of the LIFE Unit, representatives of the ASTRALE monitoring team and some project experts.

The main purpose of the meeting were the concerns of the above named gentlemen that the Commission does not spent its budget wisely for the current and recent LIFE bog restoration projects. In their opinion the Commission should focus more on the promising results of the restoration of extracted peatlands based on the *Sphagnum* Transfer Method (method tested for the last 15 years at the University of Laval, Quebec). This method, according to them, represents the best raised bog restoration procedure, which guarantees the establishment of a new *Sphagnum* layer within a short time after peat extraction.

The group of four complained the *Sphagnum* transfer method is not acknowledged as the best method for raised bog restoration among LIFE-Nature projects in Europe. The Commission and Astrale experts tried to explain to the group that this method was designed primarily for a restoration of bare peat surfaces after the large scale peat extraction and thus, this approach has only limited applicability in Natura 2000 areas, where industrial cutting has been banned. Nevertheless, there are situations where the transfer method can be efficiently used also in old degraded and re-vegetated peatlands and for example it has been applied already in four Danish projects since 2005.

It is worth noting that the Commission gives opportunities even to such small private groups to express their opinion. Mr Salsi and Mr.O'Briain appreciated the information gained from the meeting. Their recommendation to the group was that the European peat industry should consider the possibility to apply for a LIFE-Environment project that could demonstrate the advantages of the *Sphagnum* transfer method for effective and rapid restoration of extracted sites outside of Natura2000 areas. In this respect, the peat industry could provide a meaningful contribution for the improvement of cut-over areas. However, they emphasised that the development of a successful restoration methodology does not mean a free licence for the peat industry to develop new industrial sites for peat cutting within the network of European protected areas. In line with the acknowledged European policies the conservation of natural raised bog sites and the conservation of the existing carbon stocks in peatlands (which includes regeneration of degraded sites without using peat extraction as a part of the restoration method) are, and will be, of the utmost interest for the Commission.

The participants discussing the presentation

Recent scientific publications

Every month a wealth of scientific papers are published, many of which have relevance for peatland management and mire conservation. In this new column we want to present the title and the URL of a selection of these papers. The selection does not aim at completeness and will inevitably be biased by the (wide…) interest of the compiler (Hans Joosten). If you want to share papers that you fear otherwise would be missed, please send title and URL to joosten@uni-greifswald.de

Comparison of methods for quantifying soil carbon in tropical peats
http://www.sciencedirect.com/science/article/pii/S0016706113003418
Holocene dynamics of the Florida Everglades with respect to climate, dustfall, and tropical storms:
http://www.pnas.org/content/110/43/17211.short
Physiological ecology of peatland bryophytes: http://link.springer.com/chapter/10.1007/978-94-007-6988-5_13
Is CO2 flux from oil palm plantations on peatland controlled by soil moisture and/or soil and air temperatures?:http://link.springer.com/article/10.1007%2Fs11027-013-9518-3
Demography of a reintroduced population: moving toward management models for an endangered species, the whooping crane: http://www.esajournals.org/doi/abs/10.1890/13-0559.1
Centennial-scale climate change in Ireland during the Holocene:
http://www.sciencedirect.com/science/article/pii/S001282521300144X
Response of phytoliths in *Phragmites communis* to elevated CO2 concentration in Songnen Grassland, China:
http://www.sciencedirect.com/science/article/pii/S1040618213007799
Restoration potential of sedge meadows in hand-cultivated soybean fields in Northeastern China:
http://onlinelibrary.wiley.com/doi/10.1111/rec.12015/abstract
Dynamic emulations of surface radiation components during day and night under all sky and surface conditions using temporal neural networks:
http://www.tandfonline.com/doi/full/10.1080/15435075.2012.732634#.UnvyPeJR-P0
Hydrological behaviour of a drained agricultural peat catchment in the tropics. 1: Rainfall, runoff and water table relationships: http://www.tandfonline.com/doi/full/10.1080/02626667.2013.815759#.Unv5pOJR-P1

Hydrological behaviour of a drained agricultural peat catchment in the tropics. 2: Time series transfer function modelling approach: http://www.tandfonline.com/doi/full/10.1080/02626667.2013.815758#.Unv6BeJR-P0
Sand in the cogs? Power and public participation in the Alberta tar sands: http://www.tandfonline.com/doi/full/10.1080/09644016.2013.821825#.Unv6WOJR-P0
Displacing wind power across national boundaries or eco-innovation? Spatial planning implications of UK-Ireland renewable energy trading: http://www.tandfonline.com/doi/full/10.1080/14649357.2013.821837#.Unv6leJR-P0
Reflections on the Via Baltica Campaign in Poland: http://www.tandfonline.com/doi/full/10.1080/14742837.2012.704184#.Unv8B-JR-P0
Blue Carbon: Coastal Ecosystems, Their Carbon Storage, and Potential for Reducing Emissions: http://www.tandfonline.com/doi/full/10.1080/00139157.2013.843981#.Unv8wuJR-P0
Reports from the Technical Panels of the 2nd Greenhouse Gas Working Group of the Roundtable on Sustainable Palm Oil (RSPO): http://www.rspo.org/file/GHGWG2/Reports_Technical_Panels_of_RSPO_GHGWG2_FULL.pdf
Effect of catchment characteristics on aquatic carbon export from a boreal catchment and its importance in regional carbon cycling: http://onlinelibrary.wiley.com/doi/10.1111/gcb.12333/abstract
The microbial communities and potential greenhouse gas production in boreal acid sulphate, non-acid sulphate, and reedy sulphidic soils: http://www.sciencedirect.com/science/article/pii/S0048969713008644
Concentration and characteristics of dissolved carbon in the Sanjiang Plain influenced by long-term land reclamation from marsh: http://www.sciencedirect.com/science/article/pii/S0048969713008577
Inter-annual drought length governs dissolved organic carbon dynamics in blackwater rivers of the western upper Suwannee River basin: http://onlinelibrary.wiley.com/doi/10.1002/2013JG002415/abstract
The influence of climate change on recent peat accumulation patterns of *Distichiamuscoides* cushion bogs in the high elevation tropical Andes of Colombia: http://onlinelibrary.wiley.com/doi/10.1002/2013JG002419/abstract
Seasonal changes in peatland surface elevation recorded at GPS stations in the Red Lake Peatlands, northern Minnesota, USA: http://onlinelibrary.wiley.com/doi/10.1002/2013JG002404/abstract
Hen harriers on a Scottish grouse moor: multiple factors predict breeding density and productivity: http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12154/abstract
Attitudes towards biodiversity: http://ec.europa.eu/public_opinion/flash/fl_379_sum_en.pdf
Application of the landscape development intensity (LDI) index in wetland mitigation banking: http://www.sciencedirect.com/science/article/pii/S0304380013002329
Dynamic energy accounting of water and carbon ecosystem services: A model to simulate the impacts of land-use change: http://www.sciencedirect.com/science/article/pii/S0304380013001555
Peatland initiation and carbon accumulation in China over the last 50,000 Years: http://www.sciencedirect.com/science/article/pii/S0012825213001906
The vegetation history of Qinling Mountains, China: http://www.sciencedirect.com/science/article/pii/S1040618213008422
Tracing the land use history and vegetation dynamics in the Mont Lozère (Massif Central, France) during the last 2000 years: The interdisciplinary study case of Countrasts peat bog: http://www.sciencedirect.com/science/article/pii/S1040618213008288
Seed rain into a degraded tropical peatland in Central Kalimantan, Indonesia: http://www.sciencedirect.com/science/article/pii/S0006320713002899
Conservation management in fens: Do large tracked mowers impact functional plant diversity?:http://www.sciencedirect.com/science/article/pii/S0006320713002954

Ericaceae stabilize peat and foster Sphagnum majus establishment at pool margins in restored peatlands: http://www.sciencedirect.com/science/article/pii/S0304377013001149
The Little Book of Big Deforestation Drivers: www.globalcanopy.org/LittleBookofDrivers
Low investment in sexual reproduction threatens plants adapted to phosphorus limitation: http://www.nature.com/nature/journal/vaop/ncurrent/full/nature12733.html
Widespread non-microbial methane production by organic compounds and the impact of environmental stresses: http://www.sciencedirect.com/science/article/pii/S0012825213001670
Comparison of methods for quantifying soil carbon in tropical peats: http://www.sciencedirect.com/science/article/pii/S0016706113003418
Commodity Crimes:Illicit land grabs, illegal palm oil, and endangered orangutans: https://www.milieudefensie.nl/publicaties/rapporten/comodity-crimes.-illicit-land-grabs-illegal-palm-oil-and-endangered-orangutans/at_download/file
Practical guidance for implementing RSPO principles and criteria in relation to peatlands: http://www.wetlands.org/LinkClick.aspx?fileticket=Za2bjhtA4xU%3d&tabid=1888&mid=7653
Beaver pond effects on carbon storage in soils: http://www.sciencedirect.com/science/article/pii/S0016706113003078
Late Holocene sedimentation and hydrologic development in a shallow coastal sinkhole on Great Abaco Island, The Bahamas: http://www.sciencedirect.com/science/article/pii/S1040618213007507
Flight distance of mosquitoes (*Culicidae*): A metadata analysis to support the management of barrier zones around rewetted and newly constructed wetlands: http://www.sciencedirect.com/science/article/pii/S0075951113001011
The deep permafrost carbon pool of the yedoma region in Siberia and Alaska: http://onlinelibrary.wiley.com/doi/10.1002/2013GL058088/abstract
How mangrove forests adjust to rising sea level: http://onlinelibrary.wiley.com/doi/10.1111/nph.12605/abstract
World Energy Resources: Peat World Energy Council 2013: http://www.worldenergy.org/wp-content/uploads/2013/09/WER_2013_6_Peat.pdf
A multi-model analysis of risk of ecosystem shifts under climate change: http://iopscience.iop.org/1748-9326/8/4/044018/article
Towards quantitative reconstruction of peatland nutrient status from fens: http://hol.sagepub.com/content/23/12/1661.abstract?etoc
Evaluating paleoproxies for peat decomposition and their relationship to peat geochemistry: http://hol.sagepub.com/content/23/12/1666.abstract?etoc
Environmental forcing and density-dependent controls of *Culexpipiens* abundance in a temperate climate (Northeastern Italy): http://www.sciencedirect.com/science/article/pii/S0304380013004869
Lake dwellers occupation gap in Lake Geneva (France–Switzerland) possibly explained by an earthquake–mass movement–tsunami event during Early Bronze Age: http://www.sciencedirect.com/science/article/pii/S0012821X1300527X

Please send your contribution to the IMCG Bulletin by the 20th of each month: peatland@mweb.co.za