IMCG Bulletin: Dec 2013

Word from the Chair

INTERNATIONAL MIRE CONSERVATION GROUP

www.imcg.net

Dear mire friends

It's a new year! I watched the sunrise on the 1st day of 2014 on the beach on the east coast of Australia. Our Australasian members will report later this month on the December leg of the IMCG field trip and symposium to Australia. May I wish you all on behalf of the IMCG Main Board a blessed, peaceful and prosperous new year. It is also a good time to reflect on the past year and think a bit about the future.

The South African Minister of Environmental Affairs posed the question in 2013: What is the status of peatlands in South Africa? Perhaps it's a question we should ask about peatlands globally? More importantly: what role are we, as IMCG members, playing in mire conservation, and are we effective? We trust you have found the IMCG Bulletin informative and that it will help us to strengthen regional networks and events.

In the past and again more recently, the IMCG was criticised from different quarters for not supporting various 'wise use' peat exploitation practices and guidelines. We are also seen as being intolerant for not agreeing that effective peatland and mire restoration is an excuse to extract peat. It is therefore appropriate to consider at this time again, the goals and objective of the IMCG.

The IMCG was established 1984, in Klagenfürt, Austria, to promote the conservation of mires and their complete range of natural diversity throughout the world. **Our vision** is that the global conservation network, including IMCG, will be effective in guaranteeing the maintenance of the diversity and functions of mires and peatlands. As a society **our mission** is to maintain the diversity of mires and peatlands all over the world by conserving the full range of their natural functions and biodiversity; and by ensuring their wise and sustainable use.

Our objectives are "to provide and maintain a network of specialists who:
a. internationally promote, encourage and, where appropriate, co-ordinate the conservation of mires and related ecosystems; and
b. internationally enhance the exchange of information and experience relating to mires and factors affecting them." (IMCG constitution article 2)

For the benefit of organisations and individuals promoting the exploitation of mire and peatlands: the International Mire Conservation Group and its members are a conservation group – our name spells it out explicitly. We must stay true to our objectives, united in a common goal and a shared passion for the conservation of these wonderful ecosystems: mires and peatlands!!

Editorial

EU-LIFE Bog restoration under attack: Report back

The IMCG bulletin had some feedback on the last report from Jan Sliva. Edgar Karofeld responded with a series of emails and letters. However, the editorial team has decided not to publish this correspondence as this debate needs a more comprehensive platform such as the IMCG Newsletter or a series of papers for Mires and Peat. However, Edgar has made it clear that: "We did not aim at or attack anyone who is restoring extracted peatlands. But based on several examples we draw attention on some restoration activities from ditch blocking to re-wetting where not enough knowledge and best available practice is involved and therefore sometimes the results are not what were aimed for. On several slides we showed not so good practices and suggested how things can be improved. If someone likes to change things for the better, showing how it can be done and seek support for that then we are really sorry if someone else misinterpreted this as an attack against peatland restoration".

He and Jan Sliva have both pointed out the advances of the restoration methodology of Line Rochefort and her team. The editorial team wants to make it clear that we favour all these excellent restoration initiatives. However, at its core, the IMCG is a network of conservationists and we can't therefore support good restoration practices as an excuse to promote peatland exploitation.

We trust this debate will run its full course in the IMCG newsletter or Mires and Peat.

BELARUS!! 2014 IMCG General Assembly and Field Symposium

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 announced soon by Hans Joosten (joosten@uni-greifswald.de).

Mires and Peat: *Special Volume: High Altitude Mires and Peatlands*

Our editor, Olivia Bragg, wants to finalise the 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

Australia (more to follow in the January 2014 edition on the Australia 2013 Field Symposium)

Who might visit your peatland?

Top Photo: Snow in December in Australia – a wonderful surprise to all. Even to some Aussies!! (Kosciuszko National Park).	***Bottom left: IMCG members sprawling about at the Yankee Hat mire? These are Eastern Grey Kangaroo's (Namadgi National Park).***	***Bottom right: A wombat on a mire in Cradle Mountain National Park, Tasmania. The leeches in this mire kept the ladies in the IMCG team in high spirits!***

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

Finnish mire publications online

Four extensive publications on mires, published by the Finnish Environment Institute have been moved to the digital archive of publications, maintained by Helsinki University. The new permanent Internet addresses are:

- Lindholm, T. & Heikkilä, R. (eds.) 2012: Mires from pole to pole - The Finnish Environment 38/2012. 420 pp.https://helda.helsinki.fi/handle/10138/38728
- Lindholm, T. & Heikkilä, R. (eds.) 2006: Finland - Land of mires. - The Finnish Environment 23/2006 270 pp.https://helda.helsinki.fi/handle/10138/37961?show=full
- Heikkilä, R., Lindholm, T. & Tahvanainen, T. (eds.) 2006: Mires of Finland - Daughters of the Baltic Sea. - The Finnish Environment 28/2006. 166 pp.https://helda.helsinki.fi/handle/10138/38806
- Elina, G.A., Lukashov, A.D. & Yurkovskaya, T.K. 2010: Late glacial and holocene palaeovegetation and palaeogeography of Eastern Fennoscandia. - The Finnish Environment 4/2010. 304 pp.https://helda.helsinki.fi/handle/10138/37967?show=full

Peatland Symposium Siberia

Fourth International Field Symposium WEST SIBERIAN PEATLANDS AND CARBON CYCLE: PAST AND PRESENT, August 4 – 17, 2014, Novosibirsk, Russia. More information: http://www.imcg.net/media/2014/Info_WSPCC_2014.pdf

News from all over (by Hans Joosten)

Stop new concession permits on peatland in Sumatra

Environmental NGOs have urged the government to stop the issuance of new concession permits on peatland in Jambi and South Sumatra. According to the Wetlands International Indonesia Programme, converting peatlands into oil palm plantations and industrial forests disrupts the hydrological balance because of the drains built to lower the water tables in the land for planting. Excessive conversions will also affect peatlands outside the concession areas because they are hydrologically linked.

South Sumatra has 1 420 042 hectares of peatland and Jambi has 716,838 hectares. Currently, most of the two provinces' peatlands have been converted to oil palm plantations and industrial forests concessions.
(The Jakarta Post, 26 November 2013)

Q&A on fires and haze in Southeast Asia

A very readable overview on facts related to peatland fires in Indonesia has been produced by CIFOR and can be found under: http://blog.cifor.org/17591/qa-on-fires-and-haze-in-southeast-asia#.Ur0xluJR-P0

Concerns over wind farm in the Flow Country (Scotland)

Scottish Natural Heritage (SNH) has reaffirmed its objection to a proposed 47-turbine wind farm at Strathy South (Flow Country, Sutherland, Scotland).The power company SSE wants to remove a 1 000 ha large plantation of non-native conifer trees and claims that the wind farm on less than 100 hectares will lead to substantial overall environmental gain.

Public body SNH has asked for seven turbines to be removed from the plan because of likely impacts on black throated divers and wood sandpipers and has asked SSE for more information on how internationally important blanket bog habitat and bird species will be protected. More information
http://www.smallholder.co.uk/news/10848320.SNH_concerns_over_SSE_s_Strathy_South_wind_farm/?ref=var_0
http://www.bbc.co.uk/news/uk-scotland-highlands-islands-24705210

Peat and extraction Lower Saxony (Germany)

The 48th Deutscher Torf- und Humustag (German Peat and Humus Day) discussed the recent plans of the government of Lower Saxony to phase out peat extraction in this federal state, which is the hotspot of peat extraction in Germany. The producers of soil improvers and growing media want to secure further extraction permits through “open communication without ideological hysteria“.

Leading persons from the industry pointed out that stopping peat extraction in Germany will not imply that less peat will be extracted. Instead more peat will be imported from the Baltics, leading to further destruction of pristine bogs, more CO_2 emissions by transport and less restoration of degraded peatlands in Germany. Next to a loss of local employment, they fear also a rise in price and decreasing qualities.

The IndustrieverbandGarten (IVG) plans to fight the governmental initiative by introducing a ”Responsible Produced Peat (RPP)“ label “to prove the high environmental standards under which peat is extracted in Lower Saxony”.

EU Ecolabel for peat in growing media?

The European Union is considering revision of its Ecolabel criteria for soil improvers and growing media. The current criteria from 2005 (see IMCG Newsletter 2005-4 http://www.imcg.net/modules/download_gallery/dlc.php?file=54) exclude the use of peat completely.

A recent technical report of the European Commission Joint Research Centre and Ricardo AEA recommends excluding peat from EU Ecolabel for soil improvers and mulches. For growing media, there are two options proposed: either the complete prohibition of peat, or to allow the inclusion of up to 20% (on a dry matter basis) of peat that is extracted from "responsibly managed peatlands" that are neither pristine peat habitats nor designated Natura 2000 sites, Special Areas of Conservation (SACs) or Sites of Special Scientific Interest (SSSIs).

In its reaction the Royal Society for the Protection of Birds (RSPB) has expressed strong views against peat being allowed as a constituent of Ecolabelled products. Major arguments include the greenhouse gas emissions associated with peat extraction and use, the unsustainability of peat extraction, the overall poor condition of peatland habitats in the EU, the important ecosystem services and biodiversity that natural peatland provide, and the availability of more sustainable alternatives for horticultural peat. The RSPB furthermore notes that degraded peatlands should not extracted, but restored, that peat is a non-replenishing resource, so it is hard to foresee how responsible extraction might be defined, and that consumer trust in the Ecolabel should not be undermined by lowering environmental criteria.

Burns Bog Conservation Society celebrates 25th anniversary

Last month Burns Bog Conservation Society (Canada) celebrated 25 years of looking after the 2 200-hectare peatland. The group was founded in 1988 after proposals to bury Burns Bog under 6 m of landfill and convert it to commercial, residential, industrial uses. In 2004, the federal, provincial, regional, and municipal governments partnered to purchase and preserve 2 275 hectares of Burns Bog, ensuring it would never be developed. However, there are still threats to the bog's water table from encroaching development and the recent construction of the South Fraser Perimeter Road.

More information: http://www.southdeltaleader.com/community/231061651.html

IPCC adopts Wetland Guidelines

The 37th session of the Intergovernmental Panel on Climate Change (IPCC) in Batumi, Georgia, 14 - 18 October 2013, has adopted the "2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands". The guidance provided is supplementary to that contained in the 2006 IPCC Guidelines. The content of the 2006 IPCC Guidelines on wetlands is restricted to peatlands drained and managed for peat extraction, conversion to flooded lands, and some guidance for drained organic soils.

The Wetlands Supplement supplements the 2006 IPCC Guidelines by filling in gaps in the coverage and providing updated information reflecting scientific advances. This includes updating of emission factors. It covers inland organic soils and wetlands on mineral soils, coastal wetlands including mangrove forests, tidal marshes and seagrass meadows, and constructed wetlands for wastewater treatment. Importantly the supplement provides new emission factors for peatlands / organic soils, both in drained and rewetted condition. It is the result of three years' work by scientists appointed by governments and observer institutions.

Parallel to the Wetlands Supplement IPCC also adopted the "2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol". This KP Supplement provides supplementary methods and good practice guidance for estimating and reporting anthropogenic greenhouse gas emissions and removals resulting from land use, land-use change and forestry (LULUCF) activities under Article 3.3 and Article 3.4 of the Kyoto Protocol for the second commitment period, 2013-2020. This Supplement had become necessary because of the decisions of the UNFCCC to change the accounting rules for forest and to include peatland rewetting in the Kyoto Protocol.

UNFCCC accepts Wetland Guidelines

In Warsaw November 2013 UNFCCC has decided "that the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands shall apply for providing information on wetland drainage and rewetting elected activity under Article 3, paragraph 4, of the Kyoto Protocol in accordance with paragraph 11 of the annex to decision 2/CMP.7. The use of the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands is encouraged but not mandatory for any other activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol".

This means that countries that want to account for peatland rewetting have now official guidance available for estimating the associated emission reductions. Furthermore it was decided that all Parties included in Annex I (i.e. the developed countries) must apply the IPCC) "2013 Revised Supplementary Methods and Good Practice Guidance Arising from the

Kyoto Protocol" for reporting on their emissions in the second commitment period of the Kyoto Protocol.

NGOs protest against too low IPCC emission factors for oil palm

Oxfam, Wetlands International, Rainforest Action Network and the Union of Concerned Scientists protest against the too-low emission factors for palm oil plantation on peat soils, as published in the IPCC 2013 Wetlands Supplement. The organization claims that the figure for deep drained and cultivated tropical peat is nearer 70 tons – nearly double the 40 tons adopted by the IPCC.

Palm oil that is grown on tropical peatlands causes far greater emissions than when it is grown on other lands. An estimated 2.15 million hectares of palm plantations were planted on peatlands in 2010, and under current trajectories, expansion on peatlands is expected to double in the next decade.

Getting peatland emission factors right is extremely significant. Underestimating these emissions would mean that countries such as Malaysia and Indonesia would be producing far greater carbon dioxide emissions than emission calculations based on the IPCC emissions factor would suggest. Under estimation will also skew EU and US policies on renewable energy and allow for "clean" biofuels to produce more carbon pollution than traditional fossil fuels. Wetlands International sent the IPCC a letter of concern and the other NGOs call on the IPCC to reconsider its decision. They further have sent a letter to the RSPO requesting the body not to use the contested number as a standard for "sustainable" palm oil.

For more information: Marcel Silvius, Wetlands International, marcel.silvius@wetlands.org

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

Permafrost degradation stimulates carbon loss from experimentally warmed tundra: http://www.esajournals.org/doi/abs/10.1890/13-0602.1

Benefits of investing in ecosystem restoration: http://onlinelibrary.wiley.com/doi/10.1111/cobi.12158/abstract

The tolerance to salinity and nutrient supply in four European *Bolboschoenus* species (*B. maritimus*, *B. laticarpus*, *B. planiculmis* and *B. yagara*) affects their vulnerability or expansiveness: http://www.sciencedirect.com/science/article/pii/S0304377013001290

Nitrogen and phosphorus stoichiometry of common reed (*Phragmites australis*) and its relationship to nutrient availability in northern China: http://www.sciencedirect.com/science/article/pii/S0304377013001113

Recent increase in peatland carbon accumulation in a thermokarst lake basin in southwestern Alaska: http://www.sciencedirect.com/science/article/pii/S0031018213004112

The role of hydrological transience in peatland pattern formation: http://www.earth-surf-dynam.net/1/29/2013/esurf-1-29-2013.pdf

Tidal wetland stability in the face of human impacts and sea-level rise: http://www.nature.com/nature/journal/v504/n7478/full/nature12856.html?WT.ec_id=NATURE-20131205

Controls on ecosystem and root respiration across a permafrost and wetland gradient in interior Alaska: http://iopscience.iop.org/1748-9326/8/4/045029

ENSO signature in botanical proxy time series extends terrestrial El Niño record into the (sub)tropics: http://onlinelibrary.wiley.com/doi/10.1002/2013GL058038/abstract

Persistent surface water acidification in an organic soil-dominated upland region subject to high atmospheric deposition: The North York Moors, UK: http://www.sciencedirect.com/science/article/pii/S1470160X12000647

The influence of forestry on acidification and recovery: Insights from long-term hydrochemical and invertebrate data: http://www.sciencedirect.com/science/article/pii/S1470160X11004134

Past acidification and recovery of surface waters, soils and ecology in the United Kingdom: Prospects for the future under current deposition and land use protocols: http://www.sciencedirect.com/science/article/pii/S1470160X13000794

Modelling the long-term response of stream water chemistry to forestry in Galloway, Southwest Scotland: http://www.sciencedirect.com/science/article/pii/S1470160X13000630

The future of upland water ecosystems of the UK in the 21st century: A synthesis: http://www.sciencedirect.com/science/article/pii/S1470160X1300383X

Canadian boreal pulp and paper feedstocks contain neuroactive substances that interact in vitro with GABA and dopaminergic systems in the brain: http://www.sciencedirect.com/science/article/pii/S0048969713009546

Dimension reduction and data sharpening of high-dimensional vegetation data: An application to Swiss mire monitoring: http://www.sciencedirect.com/science/article/pii/S1470160X13002835

Similar methane fluxes measured by transparent and opaque chambers point at belowground connectivity of *Phragmitesaustralis* beyond the chamber footprint: http://www.sciencedirect.com/science/article/pii/S0304377013001691

Flooding tolerance and horizontal expansion of wetland plants: facilitation by floating mats?:http://www.sciencedirect.com/science/article/pii/S0304377013001666

Late holocene marine transgression and the drowning of a coastal forest: lessons from the past, Cape Cod, Massachusetts, USA: http://www.sciencedirect.com/science/article/pii/S003101821300521X#

Shifting environmental controls on CH4fluxes in a sub-boreal peatland: http://www.biogeosciences.net/10/7971/2013/bg-10-7971-2013.pdf

Macrophyte loss drives decadal change in benthic invertebrates in peatland drainage ditches: http://onlinelibrary.wiley.com/doi/10.1111/fwb.12252/abstract

Peatlands International issue 2.2013: http://bit.ly/17uuhyb

A fire driven shift from forest to non-forest: evidence for alternative stable states?:http://www.esajournals.org/doi/abs/10.1890/12-1766.1 (Tasmanian peatland)

Medieval land reclamation and the creation of new societies: comparing Holland and the Po Valley, c.800–c.1500: http://www.sciencedirect.com/science/article/pii/S0305748813001060

A horizon scan of global conservation issues for 2014: http://www.sciencedirect.com/science/article/pii/S0169534713002772 (with land loss in Southeast Asia from subsidence of peatlands as a main item)

Effect of *Carex rostrata* on seasonal and interannual variability in peatland methane emissions: http://onlinelibrary.wiley.com/doi/10.1002/2013JG002474/abstract

Climate warming feedback from mountain birch forest expansion: reduced albedo dominates carbon uptake: http://onlinelibrary.wiley.com/doi/10.1111/gcb.12483/abstract (relevant for peatland forestry)

Cumulative geoecological effects of 62 years of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska: http://onlinelibrary.wiley.com/doi/10.1111/gcb.12500/abstract

Influence of the physical terrestrial Arctic in the eco-climate system: http://www.esajournals.org/doi/abs/10.1890/11-1062.1

Growing season and spatial variations of carbon fluxes of Arctic and boreal ecosystems in Alaska (USA): http://www.esajournals.org/doi/abs/10.1890/11-0875.1

An estimated cost of lost climate regulation services caused by thawing of the Arctic cryosphere: http://www.esajournals.org/doi/abs/10.1890/11-0858.1

Was there a '4.2 ka event' in Great Britain and Ireland? Evidence from the peatland record: http://www.sciencedirect.com/science/article/pii/S0277379113004186#

Estimating water balance components of tropical wetland lakes in the Pantanal dry season, Brazil: http://www.tandfonline.com/doi/abs/10.1080/02626667.2013.870665#.UrIYxuJR-P0

Architects of the Swamp: http://www.nature.com/scientificamerican/journal/v309/n6/full/scientificamerican1213-74.html?WT.ec_id=SCIENTIFICAMERICAN-201312

Tigers Forever: http://www.nature.com/scientificamerican/journal/v309/n6/full/scientificamerican1213-80a.html?WT.ec_id=SCIENTIFICAMERICAN-201312

Expert assessment of sea-level rise by AD 2100 and AD 2300:
http://www.sciencedirect.com/science/article/pii/S0277379113004381

Late Holocene ecohydrological and carbon dynamics of a UK raised bog: impact of human activity and climate change: http://www.sciencedirect.com/science/article/pii/S0277379113004307

Geochemical records of palaeoenvironmental controls on peat forming processes in the Mfabeni peatland, Kwazulu Natal, South Africa since the Late Pleistocene:
http://www.sciencedirect.com/science/article/pii/S0031018213005567

Subsidence and soil CO_2efflux in tropical peatland in southern Thailandunder various water table and management conditions: http://www.mires-and-peat.net/map11/map_11_06.pdf

Carbon isotope composition as indicator for climatic changes during the middle and late Holocene in a peat bog from Maramureş Mountains (Romania): http://hol.sagepub.com/content/24/1/15.abstract?etoc

An operational framework for defining and monitoring forest degradation:
http://www.ecologyandsociety.org/vol18/iss2/art20/

Peatland initiation and carbon accumulation in China over the last 50,000 years:
http://www.sciencedirect.com/science/article/pii/S0012825213001906

Soil–solution partitioning of DOC in acid organic soils: results from a UK field acidification and alkalization experiment: http://onlinelibrary.wiley.com/doi/10.1111/ejss.12089/abstract

Controls on methane emissions from *Alnusglutinosa* saplings:
http://onlinelibrary.wiley.com/doi/10.1111/nph.12561/abstract

Demonstrating approaches to REDD+lessons from the Kalimantan Forests and Climate Partnership:
http://climatepolicyinitiative.org/wp-content/uploads/2013/11/SGG-Case-Study-Lessons-from-the-Kalimantan-Forests-and-Climate-Partnership.pdf

Peatland Conservation: a Global Priority and a UK Opportunity: http://www.2020climategroup.org.uk/wp-content/uploads/2013/11/Peatland_conservation-a_global_opportunity_131111.pdf

The Tropical Peatland Plantation-Carbon Assessment Tool: estimating CO2 emissions from tropical peat soils under plantations: http://link.springer.com/article/10.1007%2Fs11027-013-9517-4

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