IMCG Bulletin: June 2015

INTERNATIONAL MIRE CONSERVATION GROUP

www.imcg.net

Word from the Chair

Dear mire friends

We received a large number of contributions for the June 2015 issue of the IMCG Bulletin. You can read more about three of our Main Board members and news from South America, Oceania, Southeast Asia, Scotland and Canada. Featuring as well is a name change for the IPS and a book review.

We report on the 12th Meeting of the Conference of Parties to the Ramsar Convention on Wetlands (COP12), which was held in Punta del Este, Uruguay, from 1 to 9 June 2015. Important is the latest peatland resolution adopted at this COP12. Read on page 12 Tatiana Minayeva's opinion on mire conservation and Ramsar Convention.

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! Contributions for the next IMCG Bulletin can be sent by 25 June 2015 to Piet-Louis Grundling - peatland@mweb.co.za.

Get to know your Main Board members - Featuring:

Francis Muller

Francis is head of Pôle-relais tourbières, the French Mire Resource Centre. Established in 2001, just before IMCG visited France, in Besançon (Eastern France), this centre is managed by the Federation of French Conservancies (Fédération des conservatoires d'espaces naturels), having 29 member associations all over France, which are owners and / or managers of sites of natural interest.

Having initially studied pharmacy, Francis worked in this topic for several years. He became a professional nature conservationist in the early 1990s after having practised nature conservation as a hobby for an extended period. He was first in charge of the protection of different natural areas, including ponds and other wetlands, in his native province of Lorraine. He manages, since 2003, the Pôle-relais tourbières with a team of 4 people. He finds much interest and inspiration in visiting mires all over the world with IMCG. He is treasurer of IMCG and may in the foreseeable future request a financial contribution from members, as our treasure (our bank balance) is getting a bit empty!

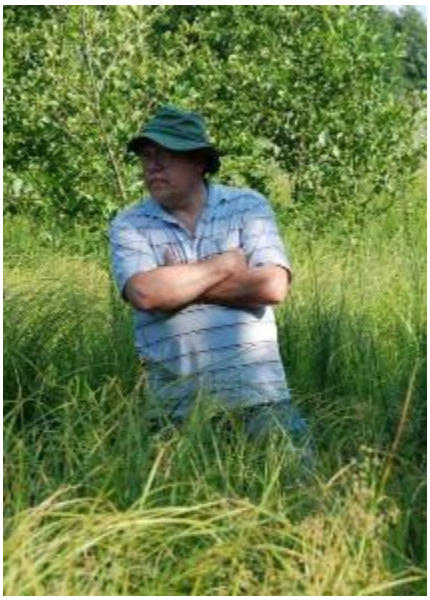
Faizal Parish

Faizal is a wetland ecologist by training with nearly 40 years' experience in working on peatlands.

Originally from the UK where he studied fen peatlands and blanket mires, he has been living in Malaysia since 1983 working to promote the conservation of tropical peat swamp forests in South East Asia. He helped establish the ASEAN Peatland Management Initiative in 2002 and draft the ASEAN Peatland Management Strategy 2006-2020. He is currently a senior technical advisor to ASEAN on the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 - a multi-partner programme that aims to channel US$250 million to support conservation, rehabilitation and sustainable use of peatlands in the region. He has also worked on rehabilitation of montane peatlands in the Tibetan Plateau and has been active in IMCG since 2003.

He was the founder of Wetlands International Asia Pacific in 1983 and currently is the Director of the Global Environment Centre (GEC), a Malaysian NGO working on peatlands, forests and river management mainly in the Asia Pacific Region.

Faizal is organising the 2016 IMCG Bi-annual Field Symposium, Conference and General Assembly in Malaysia (the 2nd half of August 2016). The IMCG Bulletin will provide an update on arrangements in the July issue.



Lesław (Leszek) Wołejko

Leszek is currently an associate professor at the Department of Botany and Nature Protection, West Pomeranian Technological University in Szczecin, Poland. He specializes in botany and plant community ecology and nature protection, landscape planning, and ecosystem restoration.

Leszek has 35 years of professional experience in vegetation and flora of Central Europe and Japan; with vast experience in regional planning, conservation and nature management projects and partnerships with governmental institutions, private sector and NGOs. He has participated in wetland, grassland and forest mapping, management and restoration projects, including several National Parks, nature reserves and Natura 2000 sites.

He enjoys IMCG field symposia and his well-known humour has often carried participants through tough times on excursions!

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*).

Special Issue: Peatland Strategies and Action Plans

We are now receiving manuscripts for the next special volume, *Peatland Strategies and Action Plans*. Those who have promised material for this volume but have not yet submitted are reminded to do so, and there is still room for further offers. Contact the Editor-in-Chief (see below) or Peter Jones (peter.s.jones@cyfoethnaturiolcymru.gov.uk) to discuss contributions to this volume.

Special Issue: Growing Sphagnum

Guest Editors: Line Rochefort, Stephan Glatzel

This volume will cover all aspects of ex-situ cultivation of Sphagnum in the field, greenhouse and laboratory cultures. Sphagnum continues to be an indispensable raw material for valuable products. Because of this, the extraction of peat moss and fibric peat is continuing worldwide. As peat moss extraction is no longer possible in many places because it has become too scarce, we need to look for new techniques of Sphagnum production. Recently, the practice of growing Sphagnum, known as “Sphagnum paludiculture” or “Sphagnum farming”, has been tested in many places. Sphagnum has also been harvested and/or grown in culture as seed material for peatland restoration. The special issue “Growing Sphagnum” addresses all aspects of ex-situ production of Sphagnum including:

- Horticulture /agronomy
- Methods
- Economy
- Ecology
- Life Cycle Analysis
- Local Case Studies

We ask contributors to send provisional titles and estimated dates for submission of manuscripts to the Editor-in-Chief Olivia Bragg o.m.bragg@dundee.ac.uk as soon as possible, and in any case by 30 September 2015.

For our continuing series of standard volumes, we are always happy to receive new manuscripts on any topic relating to mires, peatlands and peat. Please send these to the Editor-in-Chief 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 and J.O. Rieley);
- minimal publication delays (the 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

South America

Rodolfo Iturraspe (rodolfoiturraspe@yahoo.com)

Chile

The closing seminar of the program "Environmental, legal and commercial basis to the wise use of Peatlands in the Magallanes Region (Chile)" took place on June 16 in Punta Arenas, Chile. This program was developed by the INIA KAMPENAIKE Institute, under the direction of researcher Erwin Dominguez. The results of the project provide a significant contribution to the knowledge of the regional peatlands and their management and conservation. The new book "Funciones y servicios ecosistémicos de las turberas en Magallanes" (functions and ecosystem services of the peatlands of Magallanes) edited by INIA (in Spanish) was presented during the seminar.

News from Uruguay: COP12

The 12th Meeting of the Conference of the Contracting Parties to the Ramsar Convention on Wetlands (COP12) was held in Punta del Este at the Conrad Resort, Uruguay, from 1 to 9 June 2015. The theme of the conference was *Wetlands for our Future*. The 49th meeting of the Standing Committee took place on 1 June, and regional meetings on 2 June. Addressing the factors that drive wetland loss and degradation will be a priority action for all Contracting Parties to the Ramsar Convention in future. COP12 approved a new Strategic Plan 2016 to 2024 to guide country actions to conserve and wisely use their wetlands. Delegates meeting in Uruguay also approved key decisions that will facilitate the implementation of the Strategic Plan. These include;

- **The key role of peatlands in climate change regulation**
- The key role of wetlands in reducing disaster risks
- Protecting water requirements of wetlands in order to maintain their healthy functioning for the future and present.
- Welcoming the Wildfowl and Wetlands Trust (WWT) as an International Organization Partner of the Convention
- Establishing the World Wetland City Accreditation System to preserve urban and peri-urban wetlands threatened by expanding cities
- Conservation of the Mediterranean Basin Island wetlands

More feedback on Ramsar COP12 on page 10

Oceania

Bev Clarkson: Clarksonb@landcareresearch.co.nz

New Zealand: National Wetland Trust restoration project

The site for a proposed wetland centre for the New Zealand National Wetland Trust at Lake Serpentine, south of Hamilton City, is the focus of an extensive pest eradication and habitat restoration project. The wider area consists of three modified peat lakes surrounded by herbaceous and shrubby mires, with a small stand of

mature swamp forest. Since a predator-proof fence was completed in 2013, several pest control operations have been undertaken, which have successfully removed all the large vertebrate pests, i.e. rats, cats, rabbits, hares, possums, ferrets, weasels, and stoats. A small residual population of mice, however, has been recently detected and will be targeted over the next few months. Other activities at the site include restoration plantings, weed control, excavating shallow ponds for rare water fowl habitat, and construction of paths, boardwalks, seating and information boards. A keen group of volunteers has been active in monitoring and inspecting the fence, and helping with plantings, after care, and associated tasks. Read about the restoration progress and other National Wetland Trust matters in the latest newsletter.

Southeast Asia

Faizal Parish (fparish@gec.org.my)

Lao PDR

Surveys of peatlands were conducted in Lao PDR by The Global Environment Centre and the Ministry of Natural Resources and the Environment, Lao PDR. 13 sites were surveyed in 2 provinces, with 7 sites in Vientiane Province and 6 sites in Champassak Province. For Vientiane Province, 3 previously surveyed sites were verified and presence of peatlands was confirmed. For Champassak Province, 5 sites were verified to be peatlands. In total, about 800 ha of peatlands had been confirmed in both Vientiane and Champassak Province, with peat depths of 0.7m to 4m. In summary, peatlands in Lao are relatively small and scattered. The biggest area of peat found is located in Beung Kiat Ngong, also a RAMSAR site in Champassak Province. Generally, the organic layer/ peat that that was found in this survey showed a lot of variation in terms of colour, texture and its content. Some sites have been degraded by peat extraction for fertilizer - but generally this has been stopped now.

Fibric and high organic content

Hemic/ Sapric peat (firm) with silt peat (firm)

Cambodia

Peatland assessments were conducted in Cambodia in Botum Sakor National Park in Koh Kong Province. The team comprised regional peat expert, Dr. Le Phat Quoi, Center for Environment Science and Ecology and Ms. Julia Lo from Global Environment Centre, representatives of Department of Wetland and Coastal, Ministry of Environment, Sun Visal, Hong Lurk, Pech Moran, Sotha Tann and Nalin Phon with the assistance of two students from local university Phallis Eang and Taing PorChhay. A total of seven days of survey by speed boats was undertaken in Botum Sakor and up to 1000ha of peatlands were identified mostly less than one metre deep, with about half less than 0.50m. This is the second peatland described in Cambodia after the first discovery in 2012 in Peam Krasop Wildlife Sanctuary (PKWS) – both in the mangrove zone. In Botum Sakor mangrove area, the most common species are *Rhizophora apiculata*, *Bruguiera gymnorrhiza*, *Xylocarpus granatum* and *Bruguiera sexangula*. *Rhizophora apiculata* dominates in river banks with sedimentation/mudflats, while a mixture of species such as *Xylocarpus granatum, Bruguiera gymnorrhiza, Heritiera littoralis*, *Nypa fruiticans, and Pheonix paludosa* dominated in river banks which face erosion. In term of vegetation, the flora of Botum Sakor mangrove area is more diverse compared to PKWS. In some areas, the forest floor is overgrown with undergrowth of ferns and *Acanthus*, which make it very hard to walk.

Peat in mangroves in Cambodia with small Rhizophora apiculata *and big* Lumnitzera littorea *in the background*

Peatland with Bruguiera sexangula *dominated mangrove forest with* Xylocarpus granatum *and other species*

Typical peat sample with underlying marine clay layer

APSMPE Development: GEF 6 Consultation Meeting

A consultation meeting, attended by almost all ASEAN Member States, was held in Kuala Lumpur earlier this year The objective of the meeting was to discuss the preparations for the upcoming ASEAN Programme for Sustainable Management of Peatland Ecosystems (2014-2020).

Delegates of the member states

Selangor Centre of Excellence for Peatland Awareness and Conservation

The Selangor Centre of Excellence for Peatland Conservation was launched on 1 June 2015 by Ms. Elizabeth Wong, Executive Council for Selangor State Tourism, Consumer Affairs and Environment Committee. Located at Compartment 73 of the Raja Musa Forest Reserve, the Centre is accessed via Kampung Raja Musa in Bestari Jaya. The event was held in conjunction with the Selangor World Forestry Day celebration. Some 1500 Ramin Melawis (*Gonostylus bancanus*) saplings were planted during the event. The updated Integrated Management Plan for North Selangor Peat Swamp Forest (2014-2023) was also launched during the event. This plan covers an area of 81,000ha of peatland in four forest reserves and 15,000ha of buffer zone with agricultural and plantation activities.

Entrance to the Selangor Centre of Excellence

Six EU Ambassadors visit Raja Musa Rehabilitation Site and Centre of Excellence.

In conjunction with World Environment Day, six EU Ambassadors in Malaysia and their families joined over 200 volunteers to rehabilitate the peat swamp forest in Compartment 100, Raja Musa Forest Reserve on 13 June 2015. Together they planted 600 tenggek burung trees and an additional 20 ramin melawis trees. The group also visited the Centre of Excellence for North Selangor Peat Swamp Forest and a nursery run by local villagers. The nursery raises saplings for rehabilitation efforts in the Forest Reserve. They were hosted by the Selangor State Government, the Selangor State Forestry Department and Global Environment Centre.

EU Ambassadors and families with volunteers

Faizal Parish explaining some details of swamp forest ecology to delegates

ASEAN Peatland Task Force, Manila, 23 June 2015

The first meeting of the ASEAN Task Force on Peatlands was held on 23 June in Manila Philippines. This new body established by the 10 member Association of Southeast Asia Nations (ASEAN) has representatives from each member country and is tasked with overseeing the implementation of the ASEAN Peatland Management Strategy 2006-2020 and the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE). The meeting reviewed the progress of each country in implementing the APMS and development of associated National Action Plans on Peatlands. The meeting also reviewed and supported further development of proposed support of about US$50 million from the European Union, German Government and the Global Environment Facility for the implementation of the APSMPE.

Ramsar news

Conference of the Contracting Parties to the Ramsar Convention on Wetlands (COP12): Peatlands

Hans Joosten: joosten@uni-greifswald.de

Many IMCG members were involved in getting a new peatland resolution prepared and adopted at COP12. This *draft resolution on peatlands, climate change and wise use: implications for the Ramsar Convention (COP12 DR11)*, was submitted by Denmark and supported by Finland, was taken up by plenary on Friday, 5 June. The draft was addressed in a Friends of the President group and informally. A revised draft resolution was adopted in plenary on Tuesday, 9 June, with minor editorial amendments.

Norway read a statement by the Nordic Council of Ministers of the Environment recognizing peatlands' importance for preserving biodiversity and limiting human-induced climate change, stressing multiple benefits arising from peatlands restoration, and committing to incorporate peatland restoration into the future climate agreement. Switzerland requested reference to the Nordic statement in the resolution text, with Colombia noting that inserting a mention of peatlands in the negotiating draft of the new climate agreement would be complex.

Denmark emphasized links with CBD Aichi Target 15 (restoration of degraded ecosystems). Belarus and China suggested underscoring the importance of sharing best practices. New Zealand and the US supported work on peatlands and carbon sequestration, while suggesting further clarification on the respective roles of the UN Framework Convention on Climate Change (UNFCCC) and the Ramsar Convention. Panama supported the STRP's work in developing guidelines for peatlands inventories, while Chile cautioned that the STRP should consider the complex nature of different types of peatlands. China, supported by Argentina and Panama, proposed that the STRP also develop an inventory of peatland sites as wetlands of international importance.

The Russian Federation suggested referring to the key findings of the Global Assessment on Peatlands, Biodiversity and Climate Change, that was taken into account by CBD COP9. Canada proposed references to, inter alia: peatland restoration, in addition to conservation; peatlands' role as a vital ecological reserve; and wetlands management to increase resilience to climate change and extreme climatic events. Indonesia

proposed reference to peatlands aiding natural disaster risk reduction. Cameroon requested consideration of the role of mangroves.

Brazil expressed opposition to sectoral approaches to climate change, arguing in particular that mitigation should primarily be a question of reducing fossil fuel consumption by developed countries, and suggested eliminating references to mitigation and adaptation as ecosystem services provided by peatlands. Argentina, Bolivia, Cuba and Venezuela supported this, expressing concern about prejudging ongoing negotiations under the UNFCCC. Brazil and Venezuela also requested eliminating language on: REDD+, supported by Bolivia; land-related portions of a new climate agreement, supported by Colombia; and agriculture and land use in relation to climate change. Mexico supported the consideration of mitigation and adaptation as ecosystem services provided by peatlands, and, supported by Colombia, the inclusion of a mention of peatlands in both tropical and temperate regions.

In the *final resolution on peatlands, climate change and wise use: implications for the Ramsar Convention (COP20 DR11 Rev.3)*, the COP encourages parties to, inter alia:

- consider, as appropriate, limiting activities that lead to drainage of peatlands, urging greater international cooperation, technical assistance and capacity building;
- designate, as appropriate, as Wetlands of International Importance at least one peatland area; and
- utilize national and regional inventories to map the distribution of peatlands with a view to determining the extent to which they sequestrate carbon.

In addition, the COP, among others:

- requests the Secretariat, working with the STRP, IOPs and other stakeholders, to compile best practices in peatland restoration techniques and share them through the Ramsar official website;
- encourages Ramsar bodies to collaborate with relevant international conventions and organizations, including UNFCCC bodies, on the relationship between peatlands and climate change; and
- invites the Ramsar Administrative Authorities to bring this resolution to the attention of the national focal points of other MEAs.

The COP furthermore requests that the STRP considers in conjunction with parties and IOPs:

- developing guidelines for inventories of peatlands, and for the further application of Criterion 1 for the selection of Wetlands of International Importance (representative, rare or unique example of a natural or near-natural wetland type);
- evaluating the progress made with the implementation of the “Guidelines for Global Action on Peatlands”; and
- advising COP13 on practical methods for rewetting and restoring peatlands.

Read more on this crucial contribution at:
http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A806688&dswid=1306
http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A814147&dswid=6864

Mires in the Ramsar convention –the aftertaste of the COP

Tatiana Minayeva (Tatiana.Minayeva@wetlands.org)

Since 1996 IMCG members have devoted much time and resources to initiate, draft and promote various key Ramsar recommendations and resolutions on peatlands, including Recommendation VI.1 encouraging cooperation on wise use, sustainable development, and conservation of global peatlands; Recommendation VII.1 on the wise use of peatlands with an annexed 'draft global action plan for the wise use and management of peatlands'; and Resolution VIII.17 adopting 'Guidelines for global action on peatlands' and calling for the establishment of a coordinating committee for global action on peatlands (CC GAP).

Resolution VIII.17 has special significance for peatland conservation, as it provides countries with a framework for peatland conservation work and for assessing progress. CC GAP provided a structure where countries and interested participants could work together.

For each Conference of Contracting Parties (COP), IMCG provided strategic input into drafting a wide range of resolutions in collaboration with the Scientific and Technical Review Panel (RSTRP) and country representatives. This resulted, amongst others, in Resolution VIII.3 'Climate change and wetlands: impacts, adaptation and Mitigation', which recognized the role of peatlands in mitigating climate change, and Resolution VIII.11 'Additional guidance for identifying and designating under-represented wetland types as Wetlands of International Importance' to improve designation of peatlands, which had hitherto been underrepresented in the Ramsar system. These Ramsar decisions were also used to introduce peatlands to other conventions, including the CBD and the UNFCCC.

Up until 5-6 years ago it looked as though enough decisions were in place to be implemented, but in reality the role of Ramsar was in many countries, especially in Europe, replaced by other regulations. This also became apparent at COP12, which took place in Uruguay 1-9 June 2015.

The COP was characterised by an unusually low representation of countries. Only 141 out of 168 parties were represented of which only 121 had their credentials in order. Out of 28 EU member countries only 19 were present, mostly only with one delegate. Still very active were Austria, Czech Republic, Denmark, Sweden and Finland. From the EU 'peatland' countries Poland and Lithuania were absent.

The flow, exchange and level of preparation of documents was of unusually low quality, contrary to expectation because the Ramsar Secretariat normally works very effectively. Only 15 draft resolutions were scheduled, which is positive, as dealing with more than 40 Resolutions (the normal Ramsar average) is a catastrophe for countries, especially when there is only one delegate. However, the quality of the resolutions was unusually low. In many cases it was not clear what the draft resolution was asking for, as the formulations were too general. Delegates worked days and nights in contact groups to bring up and agree on amendments.

The peatland resolution XII.11 'Peatlands, climate change and wise use: Implications for the Ramsar Convention' (http://www.ramsar.org/sites/default/files/documents/library/cop12_dr11_rev3_peatlands_e_clean.pdf) was initiated by the Nordic Baltic Ramsar Regional initiative. The Standing Committee presented the text poorly. The resolution would have benefited if its draft text had been widely shared already before the Standing Committee so that IMCG members could have contributed via their country representatives. The most valuable message of the resolution is a call to countries to combine mechanisms of the UNFCCC and the Ramsar Convention - and in some cases CBD – to manage peatlands in the best way for climate change adaptation and mitigation. Unfortunately, not all countries could accept this wording: several South American countries are

already for many years consequently preventing any attempt to arrive at synergies among conventions and want to keep concepts tightly connected to the respective conventions: climate to climate, wetland to wetland. Amendments were submitted by countries from all around the world, including Argentina, China, Indonesia, Russia and European countries, demonstrating countries' raised awareness and feeling of responsibility for peatlands.

In order to convince Contracting Parties to vote for the resolutions, the Contracting Parties that had initiated a resolution organised, in partnership with International Organization Partners, so called 'side events', technical meetings explaining the main messages of the resolution and its implication for the Convention and for the Parties. Two side events had been devoted to peatlands.

The side-event 'Peatlands, climate regulation and biodiversity in a Ramsar perspective' was organised by countries of Nordic-Baltic Ramsar Regional initiative in support of resolution XII.11 and had more than 100 attendees. At the event a study on the peatlands of the Nordic-Baltic region was presented, of which the content may also surprise IMCG members from these countries (http://www.diva-portal.org/smash/get/diva2:814147/FULLTEXT02). The other document presented was the Policy Brief: "Peatlands, climate change mitigation and biodiversity conservation" written by Hans Joosten (http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A806688&dswid=-6142). Impressive contributions were presented by Sweden (Jenny Lonnstad), Estonia (Hanno Zngel) and Denmark (Peter Hahn) on peatland restoration and Ramsar site designation driven by climate change related legislation. These examples clearly showed the existing synergies between conventions on the ground. The presentation of Indonesia demonstrated how peatland restoration for climate change mitigation can be accommodated by national legislation. Conceptual introductions were given by Lars Dinesen (Nature Planning and Forest, Denmark), Jane Madgwick (Wetlands International CEO) and Jari Ilmonen (Finland). Tatiana Minayeva (Wetlands International) gave an overview of the implementation of Resolution VIII.17 since its adoption.

The side event 'Peatland conservation and rehabilitation: issues and solutions with special attention to Arctic Wetlands' with around 80 attendees focused on peatland restoration and management specifically for climate change adaptation and mitigation with case studies from Argentina (Daniel Blanco), Belarus (Natalya Minchenko and Victor Fenchuk) and Russia (Andrey Sirin). This side event generated several amendments to the draft resolutions, including a statement on the dissemination of countries' experiences with peatland restoration as a climate change mitigation measure and the need to support this activity.

Two presentations on the Arctic followed up the failed resolution on Arctic wetlands. The Komi UNDP office presented the key outputs of a pilot ClimaEast project aimed at climate change mitigation measures on the ground: gazetting and improved management of protected areas and ecosystem restoration. The presentation of Wetlands International focused on the significance of Arctic wetlands for controlling global climate change and connectivity of global populations of migratory birds and marine mammals.

We hope that all these efforts from a wide variety of motivated people will help to engage more Ramsar capacity in mire conservation.

Read more on the past COP12 at the following links: UNFCC statement:
http://www.ramsar.org/sites/default/files/documents/library/ramsar_unfccc_statement_-_punta_del_este_cop_2015.pdf
Link to all COP12 official documents:
http://www.ramsar.org/event/12th-meeting-of-the-conference-of-the-parties

News from all over

Compiled by Hans Joosten: joosten@uni-greifswald.de

Workshop at UNFCCC meeting Bonn: Peatlands, Forests and the Climate Architecture

During a side event at SBSTA42 to the UNFCCC on the 4th of June 2015 in Bonn, the results of a research project 'Peatlands and Forests in the Climate Architecture' were presented by the German Emissions Trading Authority (DEHSt). The DEHSt has now put the report and presentations online. 'Peatlands and Forests in the Climate Architecture' describes political and economic possibilities for regulating climate change mitigation from peatlands and forests.

MICCA presents case studies of peatland management

The Mitigation of Climate Change in Agriculture (MICCA) Programme of the Food and Agricultural Organization of the United Nations (FAO) has made case studies on peatland management practices available online. The case studies describe practices related to rewetting, paludiculture, degraded pasture restoration, forestry practices, aquaculture and fishery. Each case study is evaluated against the same parameters: environmental characteristics, socio-economic impact, cost-benefit assessment and the impact on ecosystem services and climate change. If you are interested in sharing a case study: complete the Peatland case study template and send it to micca@fao.org and armine.avagyan@fao.org.

Draft High Carbon Stock study online available for comments

The draft High Carbon Stock study of the oil palm industry is now available online for comments until July 31, 2015. The draft report is the outcome of a project, financed by major oil palm companies, to develop stringent criteria and methods how to avoid high carbon stock forests and peatlands in future massive expansions that are expected and prepared in Southeast Asia and West and Central Africa. Extensive information about the project is available under http://www.carbonstockstudy.com, a short information brochure is available here.

The only peat swamp forest on Borneo dominated by coniferous species, the forest reserve Lawas in Sarawak (Malaysia), was recently converted to oil palm (foreground) with only a tiny part remaining (background). Hans Joosten, 24 August 2014.

Corporations demand higher palm oil standards

Institutional investors representing over $5 trillion in assets have joined some of the world's most recognizable consumer brands, such as PepsiCo and Procter & Gamble, to demand higher standards for certifying the sustainable production of palm oil. Forests and peatlands are being converted to palm plantations that yield the lucrative oil – a key ingredient in about half of all packaged goods, from cosmetics to candy. More info here and here.

Scottish Water aims to use satellites to monitor their peatland source water catchments

Rezatec, the leading landscape intelligence data products provider, is working with Scottish Water on a proof-of-concept project to help assess peatland integrity across remote parts of their catchments to help protect and improve the quality of their source water. More info is found here.

Manitoba (Canada) tightens rules on peat extraction

The Manitoba government has introduced stricter rules to govern peat extraction in the province.

"We must ensure that peat harvesting is managed sustainably and for the long term in order to protect Manitoba's land and waterways," Conservation and Water Stewardship Minister Tom Nevakshonoff said on June 16. "This legislation will significantly increase environmental responsibilities for the industry and promote responsible resource harvesting." More info here.

South Vietnam has huge peat reserves

Current peat reserves of U Minh Ha forest in Vietnam's southmost Ca Mau province are estimated at 13 million tons, Vietnam News Agency (see here) reported on June 16, quoting the Southern Geological Mapping Division, which is under the General Department of Geology and Minerals. Nguyen Tan Truyen, deputy head of the science-international cooperation section at the U Minh Ha National Park, said forest fires have ruined a considerable volume and area of peat-land. The peat-land area in Vietnam is merely 36,000 hectares with about 24,000 hectares in the Mekong Delta and U Minh forests in Ca Mau and neighboring Kien Giang province. In U Minh Ha forest, peat can only be found in 8,527 hectares out of the total area of 40,000 hectares.

International *Peat* Society renamed to International *Peatland* Society

The Annual Assembly of the International Peat Society (IPS) has decided to change the name of the Society to "International Peatland Society". This follows the Strategy 2016-2020 of the IPS and reflects the activities of the Society and its members better than its previous name, so the IPS. Consequently also the domain has changed to www.peatlands.org and email addresses to firstname.lastname@peatlands.org.

Would the renaming imply that according to IPS (more) *peat* should remain in the *land* ;-) ?

Scotland peatland action receives extra £3 million

An ambitious project which has helped drive major restorative works at 100 peatland sites has received an extra £3million funding, Scottish Natural Heritage (SNH) confirmed June 18, 2015. The Peatland Action Project is an SNH-led initiative. And the funding from the Scottish Government is a boost to the £5million already invested in helping preserve the valuable peatlands of Scotland. More info here.

Public inquiry into Strathy windfarm Scotland

On June 9, a public inquiry has resumed into plans for a 39-turbine windfarm at Strathy in Sutherland (Scotland). The Strathy South scheme is proposed for the heart of the Flow Country peatland which is rated among Europe's most important expanses of blanket bog. The scheme has had significant local support due to the developer Scottish and Southern Energy's pledge of substantial financial rewards for the community. RSPB Scotland, a leading objector, argues that just two turbines would generate sufficient money to mitigate for the project and that the other 37 turbines are superfluous for that purpose and damaging to the environment. More info here, here and here.

Strathy South area with in the background the Strathy North windfarm under construction. Hans Joosten 20 April 2015.

That sinking feeling, again…

The flooding projections for oil palm plantations on drained peatland in Sarawak, Malaysia (see report and impressive slideshow) have generated interesting comments of Erik Meijaard: "Government, companies, and communities alike need to realise that draining coastal peatlands for agriculture is a high-risk strategy that is ultimately likely to reduce rather than promote rural development and poverty alleviation. The science is there to substantiate all this. Now policy and management changes are needed to effectively do something about it." Read his complete blog here.

Book review:

Functions and Ecosystem services in the peat bogs in Magallanes

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This book was compiled thanks to funding from the Regional Government and Ministry of Agriculture and INIA in Chile within the framework of the program called "environmental databases, legal and commercial for the sustainable development of peat bogs in Magellan". It is the product of the collaboration and support of

twenty researchers from seven universities and five national and international research centres, which generously decided to make known the functions and ecosystem services in the peat bogs of Magellan, Chile.

Within its 334 pages the book reflects the complexity, the major attributes and beauty of these ecosystems in twelve chapters that comprise this unpublished work for Magellan:

- Characteristics of peat bogs ecosystems factors that influence its formation and types.
- Spatial analysis of the geographical distribution of the Sphagnum peat bogs in the Magellan Region and the Chilean Antarctic.
- The peat bogs as files of environmental changes.
- Hydrology of peatlands.
- Bryoflora and hepatics in the peat bogs.
- Flora and vegetation of the peat bogs in Magellan.
- Beetles and other insects associated with peat bogs of the Magellan moorland in the Magellan region, Chile.
- Amphibians of the peat bogs of the southern tip of Chile.
- Birds in the peat bogs of Fuego-Patagonia.
- Rodents of the peat bogs in Magellan.
- The peat bogs as carbon sinks.
- Vision and experiences for the conservation of peat bogs in Chile.

During its launch on Tuesday 16 June 1, Paola Fernández, Governor of the Province of Magellan; Etel Latorre, Seremi of Agriculture and Claudio Pérez, Director of the Regional Center Kampenaike; pointed out that this book is not only an invitation to learn about the functions and services of the peat bogs; but that is also of major importance for the decision-making on our natural resources, since any environmental policy must be based on extensive documentation of the physical, biological, and social component. Finally, this guide is aimed at those who make decisions about the future of our natural resources.

For more info visit https://www.researchgate.net/profile/Erwin_Dominguez2/contributions

Peatland conservation relevant papers

Collected by Hans Joosten: joosten@uni-greifswald.de

1. 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/abstract?campaign=woletoc
2. Modeling impacts of changes in temperature and water table on C gas fluxes in an Alaskan peatland: http://onlinelibrary.wiley.com/doi/10.1002/2014JG002880/abstract?campaign=wolacceptedarticle

3. Differences in hydrophyte life-forms induce spatial heterogeneity of CH4 production and its carbon isotopic signature in a temperate bog peatland: http://onlinelibrary.wiley.com/doi/10.1002/2014JG002881/abstract?campaign=wolacceptedarticle
4. Effects of shading on relative competitive advantage of three species of *Sphagnum*: http://mires-and-peat.net/pages/volumes/map16/map1604.php
5. Subsidence and human influences in mega deltas: The case of the Ganges–Brahmaputra–Meghna: http://www.sciencedirect.com/science/article/pii/S0048969715300589
6. Comparative ecology of vascular plant, bryophyte and testate amoeba communities in four *Sphagnum* peatlands along an altitudinal gradient in Switzerland: http://www.sciencedirect.com/science/article/pii/S1470160X15000679
7. The influence of slope and peatland vegetation type on riverine dissolved organic carbon and water colour at different scales: http://www.sciencedirect.com/science/article/pii/S0048969715003022
8. Drivers of Holocene peatland carbon accumulation across a climate gradient in northeastern North America: http://www.sciencedirect.com/science/article/pii/S0277379115002115
9. Rehabilitating upland swamps using environmental histories: A case study of the Blue Mountains peat swamps, Eastern Australia: http://onlinelibrary.wiley.com/doi/10.1111/geoa.12068/abstract?campaign=woletoc
10. 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=woletoc
11. Peatlands, forests and the climate architecture: Setting incentives through markets and enhanced accounting: http://www.dehst.de/SharedDocs/Downloads/EN/Publications/Peatlands.pdf;jsessionid=3D9C85032DE17BE209D22E77B5AEAE80.2_cid331?__blob=publicationFile
12. Seasonal dynamics of biomass partitioning in a tall sedge, *Carex acuta* L.: http://www.sciencedirect.com/science/article/pii/S0304377015000583
13. As old as the mountains: the radiations of the Ericaceae: http://onlinelibrary.wiley.com/doi/10.1111/nph.13234/abstract?campaign=woletoc
14. Protecting the Florida Everglades wetlands with wetlands: Can stormwater phosphorus be reduced to oligotrophic conditions?: http://www.sciencedirect.com/science/article/pii/S0925857414005424
15. Lead in the natural peat cores of ridge-hollow complex in the taiga zone of West Siberia: http://www.sciencedirect.com/science/article/pii/S0925857415000786
16. Peatland initiation and carbon dynamics in northeast China: links to Holocene climate variability: http://onlinelibrary.wiley.com/doi/10.1111/bor.12116/abstract?campaign=woletoc
17. Organic soils in Germany, their distribution and carbon stocks: http://www.sciencedirect.com/science/article/pii/S0341816215300126

18. A reconstruction of the palaeohydrological conditions of a flood-plain: a multi-proxy study from the Grabia River valley mire, central Poland: http://onlinelibrary.wiley.com/doi/10.1111/bor.12115/abstract?campaign=woletoc
19. Ecosystem CO_2 and CH_4 exchange in a mixed tundra and a fen within a hydrologically diverse Arctic landscape. Part 1. Modelling v:s. measurements: http://onlinelibrary.wiley.com/doi/10.1002/2014JG002888/abstract?campaign=wolacceptedarticle
20. Can boreal peatlands with pools be net sinks for CO_2?: http://iopscience.iop.org/1748-9326/10/3/035002/article
21. Multi-scale analysis of electrical conductivity of peatlands for the assessment of peat properties: http://onlinelibrary.wiley.com/doi/10.1111/ejss.12251/abstract?campaign=woletoc
22. Last deglacial and Holocene vegetation evolution and climate variability in the subalpine western Nanling Mountains in South China: http://hol.sagepub.com/content/25/8/1330?etoc
23. Charcoalified logs as evidence of hypautochthonous/autochthonous wildfire events in a peat-forming environment from the Permian of southern Paraná Basin (Brazil): http://www.sciencedirect.com/science/article/pii/S016651621500110X
24. Geophysical mapping of palsa peatland permafrost: http://www.diva-portal.org/smash/get/diva2:824663/FULLTEXT01.pdf
25. Investigations of freezing and cold storage for the analysis of peatland dissolved organic carbon (DOC) and absorbance properties: http://pubs.rsc.org/en/content/articlelanding/2015/em/c5em00126a#!divAbstract
26. Genome of Methanoregula boonei 6A8 reveals adaptations to oligotrophic peatland environments: http://mic.sgmjournals.org/content/journal/micro/10.1099/mic.0.000117
27. Bacterial and fungal communities in a degraded ombrotrophic peatland undergoing natural and managed re-vegetation: http://www.plosone.org/article/fetchObject.action?uri=info:doi/10.1371/journal.pone.0124726&representation=PDF
28. Organic geochemistry of Ağaçbaşı Yayla peat deposits, Köprübaşı/Trabzon, NE Turkey: http://www.sciencedirect.com/science/article/pii/S0166516215001159

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