IMCG Bulletin: July 2016

INTERNATIONAL MIRE CONSERVATION GROUP

www.imcg.net

Word from the Secretary-General

Dear mire friends

Our beloved chairman Piet-Louis Grundling has resigned because his IMCG activities could no longer be combined with the time-consuming duties of his new job as Deputy Director Programme Implementation of Working for Wetlands in South Africa. The Main Board will in the coming weeks consider election of a new Chair.

For the time being we in Greifswald will therefore compile the monthly IMCG Bulletin. Find in this issue information regarding IMCG organisation and interesting peatland news from all over the world.

Don't forget to share your news and experiences by sending short contributions and pictures. Your fellow members will appreciate it!

Please send your August contribution by 31 August 2016 to Hans Joosten at joosten@uni-greifswald.de.

IMCG News

New IMCG Membership Statistics

On 01 August 2016 altogether 669 IMCG Ordinary Members and Supporters were registered. Out of this number ten persons have died, one cancelled membership, 50 members do not have a valid email address any more or other crucial contact details are missing, whereas two members never had such address and are only reachable via postal contact.

This means that 606 members (ordinary members and supporters) likely receive the electronic IMCG messages. From this pool of 606 (in 63 countries), IMCG has 73 members in Africa (distributed over 11 countries, with a focus on South Africa), 23 members in Asia (7 countries, with a focus on Malaysia and China), 29 members in Australia/Oceania (2 countries), 1 member in Central America / Caribbean, 400 members in Europe (34 countries, with a focus on Germany – 77, UK – 72, Netherlands – 31, and Finland - 28), 45 members in North America (2 countries), 23 members in the Russia Federation (both Europe and Asia), and 12 members in South America (5 countries).

Compared to 2002 IMCG has more than doubled its global membership (from 276 to 606) and increased the number of covered countries with 34 % (from 47 to 63). More information on the General Assembly.

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Mires and Peat

As you could read in the last IMCG Bulletin, Thomson Reuters have increased the Impact Factor of Mires and Peat to 1.095, so there is nothing anymore that should withhold you from submitting your next high-quality paper to your own scientific journal. Find the journal online at http://mires-and-peat.net/. Send your new manuscripts on any topic relating to mires, peatlands and peat to the Editor-in-Chief Olivia Bragg: o.m.bragg@dundee.ac.uk

In July 2016 Mires and Peat has published the following articles:

- Reintroduction of salt marsh vegetation and phosphorus fertilisation improve plant colonisation on seawater-contaminated cutover bogs. (C. Emond, L. Lapointe, S. Hugron & L. Rochefort) [Volume 18: Article 17]
- Geotechnical properties of peat soil stabilised with shredded waste tyre chips in combination with gypsum, lime or cement. (M. Saberian & M.A. Rahgozar) [Volume 18: Article 16]

IMCG "European Mires Book" in press!

During the 4th IMCG meeting in Dublin (Ireland) in 1990, it was agreed that European IMCG members (at that time representing ten West-European countries) should produce a detailed report on the mires in Europe. The last attempt to do so had been in 1980 when Roger Goodwillie had delivered such a review for western Europe for the Council of Europe (Goodwillie 1980). In 1994/1995, draft chapters for up to 22 countries were produced. In 1998-2000, a new attempt was started to finalise the European Mires Book, supported by the Global Peatland Initiative (GPI). In 1999, responsibility for the entire project was transferred from Michael Löfroth (Sweden) to Hans Joosten (Germany). An advanced draft was prepared and submitted - a thoroughly edited, printed book, however, was still not achieved. In the following years attention of IMCG work shifted to emerging new and pressing issues, e.g. including peatlands in the UNFCCC architecture. In 2013-2016, the final attempt to finish this book was undertaken and with an editorial team combining long-term experience and fresh energy, with enormous support of all 130 national authors, and with a dedicated mapping and language editing team, the completed book has eventually been submitted to printing in July 2016.

Hans Joosten and Asbjørn Moen discuss the new map of European mire regions with Hannes Knapp in the Peatland and Nature Conservation International Library (PeNCIL) at the Greifswald Mire Centre, Germany, in February 2015. The mapping team (Cosima Tegetmeyer and Stephan Busse) is listening painstakingly. (Photo: Franziska Tanneberger)

The book summarises recent information on status, distribution, and conservation of mires and peatlands in the entire biogeographic Europe. It includes descriptions from 49 countries and other geographic entities (finalised and submitted already in January 2016). All country chapters follow a generic structure and include extensive descriptions of national terminology (also in national languages and script) and typologies as well as up to date area statistics and maps. They are complemented by integrative chapters presenting mire classification, mires terms, mire regionality, peatland use, and mire conservation in Europe.
The printed book will be available in January 2017. IMCG members will get the possibility to order copies at a reduced price in autumn 2016. More detailed information will follow in one of the next IMCG Bulletins.

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News from our regions

Global

Luc (Hans Lukas) Hoffmann, conservationist, born 23 January 1923; died 21 July 2016

Luc Hoffmann, who has died aged 93, was one of the last surviving greats of 20th-century nature conservation. As co-founder of the World Wildlife Fund, he helped turn conservation from a parochial, insular pursuit into a truly international movement.

Luc was born in Basel, Switzerland. His grandfather, Fritz Hoffmann-La Roche, founded the pharmaceutical company of the same name in 1896. During his youth he developed a passion for the natural world, especially birds. He published his first academic paper – on the unlikely subject of migrant seabirds in the Basel region – at the age of 18 in 1941. That year, he began his studies in botany and zoology at the city's university, but these were interrupted when he was conscripted into the Swiss army. Once the war was over, he returned to academic life, earning a PhD for his studies of the behaviour of common tern chicks in the Camargue.

Captivated by this unique wetland, in 1954 Hoffmann set up the Tour du Valat biological research station, which became one of the leading institutions of its kind in Europe. In 1961, Hoffmann was one of the signatories to a groundbreaking agreement that paved the way for the founding of the WWF, and he became the organisation's first vice-president. In 1971 Hoffmann helped set up the Ramsar Convention, which for the first time provided cross-border protection for wetlands and their wildlife. Coming into force in 1975, the convention now covers 160 countries, making it one of the most effective measures to protect habitats across the globe.

In 1994, Hoffmann used his family wealth to endow the Mava Foundation, which continues to fund nature conservation projects around the globe. In 2012 Mava, along with the WWF, set up the Luc Hoffmann Institute, which focuses on the promotion of sustainable development in an increasingly globalised and profit-driven world. Continuing the philosophy of its founder, the institute concentrates on finding practical solutions that will benefit both nature and people.

https://www.theguardian.com/environment/2016/aug/01/luc-hoffmann-obituary

Global Peatlands Initative

The United Nations Environmental Program UNEP and the UN Food and Agriculture Organisation FAO are organising a first meeting of partners for the Global Peatland Initiative to be held in FAO Headquarters in Rome, Italy, 1-2 September 2016. The purpose of the Global Peatlands Initiative is to:

- Provide an updated overall assessment of the status of peatlands and their importance in the global carbon cycle and for national economies, with emphasis on their role in enabling the achievement of global commitments to mitigate climate change, as outlined in the Paris Agreement.
- Identify and begin to respond to the needs of pilot countries with substantial peat coverage through building the knowledge base and developing options to reduce degradation and improve the sustainability of peatland management including through restoration and the development and adoption of sustainable peat strategies and action plans.

Within this context, the project will work towards developing and piloting key policy recommendations and approaches to more effectively address the drivers of peat loss and degradation, with an initial focus on Southeast Asia and Central Africa but also drawing on experiences and responses throughout the world.
The meeting will serve as the first opportunity for interested partners and experts to meet to define the scope, scale and challenges of the Global Peatlands Initiative. The meeting will consist of a strategy component on the first day and planning and technical components on the second day.
It is expected that by the end of the meeting a revised concept note will be available, with a clear framework under which the partners will collaborate and operate. The concept note will serve as the base document for the development of funding proposals, the engagement of additional partners (if needed) and communication and outreach products. The meeting will also produce a draft budget outlining the funding needs for delivery of the activities and objectives listed in the concept note.
Awareness raising among key policy- and decision-makers, and South-South cooperation, including within the private sector, will be critical elements in order to ensure that the lessons learned from peatland management in Southeast Asia can be transferred to Central Africa and Latin America where peatlands are facing increasing development pressure. This exchange of information will target, in particular, sustainable peat strategy and policy replication and upscaling in the 25 countries responsible for 95% of peat emissions.
North-South cooperation and technology transfer, especially with regards to assessing and monitoring peatland status and trends and developing safeguards approaches and information systems, will also form an important element of the Initiative.
Finally, as the private sector is a key stakeholder in sustainable peatland management, the Initiative will support discussions on how deforestation free supply chain commitments, fire management commitments, and other private-sector led initiatives can be scaled up and replicated across the 25 countries responsible for 95% of peat emissions.
As such, the Initiative is intended to contribute to the follow-up to the Paris Climate Agreement and the achievement of nationally determined contributions (NDCs), the achievement of the Aichi Biodiversity Targets, especially Target 5 on reduced habitat loss and degradation and Target 15 on the contribution of ecosystems to carbon stocks, and progress towards the sustainable development goals (SDGs).
Further information: http://www.unep.org/stories/Climate/Peat-fires-stoke-global-warming.asp

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Asia

China

High mountain peatlands in Shiqu County, Sichuan

In China, 300,000 hectares of high mountain peatlands were identified in Shiqu County, Sichuan. With an average peat depth of 5 metres, the area is still in good condition but in danger of degradation through development and human use. The area is much used by cattle herders for grazing. The area is important for endangered species such as black-necked cranes, blue sheep and Tibetan gazelle.
A seven-day wetlands expedition of nine Chinese and foreign wetland experts, including Chen Kelin (director of Wetlands International - China Office), Faizal Parish (Global Environment Centre GEC), and Wetlands International consultant John Howes, aimed to assess the status of the wetland resources of Shiqu County and to explore conservation, restoration and sustainable use options. The identification of at least 300,000 hectares preserved peatland came as a big surprise.
Shiqu County is located in the northernmost tip of Sichuan province with an average level above sea of 4,200 m and has a total wetland area of about 1.1 million hectares, accounting for about one-third of the county. Shiqu has started an anti-desertification project which includes wetland restoration and other ecological management projects with a total investment of 125 million yuan and covering an area of 8763.03 hectares.
According to Chen Kelin the state efforts to protect wetlands are large, with many policies included in the 'National Wetland Protection Regulations' and others upcoming. Because of China's rapid economic

development and large population, however, finding an adequate balance between protection and development remains a challenge. "Protection is not obstructing economic development, but the key is to have awareness of wetland conservation and how to deal with conflicts between wetland conservation and economic development. With a good understanding, it is possible to handle conflicts." Chen Kelin said.
John Howes told reporters, that Shiqu county with 1/3 of its area consisting of wetlands, is a real wetland county, which should have a very special place in China. Interdisciplinary cooperation as well as the promotion of healthy and orderly development of the wetlands will play a positive role in promoting the protection of the plateau's wetlands.

Faizal Parish coring peat in Shiqu.

According to Faizal Parish, Shiqu has not only one of the world's most beautiful sceneries he had ever seen, but also wetlands of high ecological value, as demonstrated by the presence of various rare animal and plant species. "Of course, the area also faces some problems, such as population growth, growth in livestock, but through this expedition we can give recommendations to the local government." He highly appreciated the direct involvement of local people in wetland conservation.
According to Shiqu county party secretary Yuan Mingguang 60% of the county area is subject to desertification with an annual increase rate of 6%; the frequency of dust storms is increasing every year, groundwater level decline has become increasingly evident, soil erosion is very serious, whereas pikas (pest rodents) reach a population of 1.3 billion. In its twelfth five-year plan Shiqu invested 125 million yuan in anti-desertification and pilot wetland restoration projects, including fencing. Last year also 16.4 km of ditches were blocked. But the effectiveness and speed of governance is not enough. "If you do not increase investment in comprehensive management, Governance speed is far behind grassland desertification and wetland degradation rate." Wetlands International China Office senior advisor Luan Shen Qiang said. In addition to central and local government investments, also ecological compensation should be used as a mechanism for the benefit of upstream ecosystem service providers. "For grasslands and wetlands, not necessarily all pastoralists have to be

moved out of pasture, but a reasonable balance should be found between grazing and protection", Faizal Parish said.
http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=3339
http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=3346

Georgia

Percolation bogs in the Kolkheti lowlands (Georgia) in need of better protection.

Ab Grootjans, Matthias Krebs, Izolda Matchutadze and Hans Joosten

In the first week of May 2016 Mattias Krebs, Hans Joosten and Ab Grootjans accompanied by Izolda Matchutadze visited the Kolkheti National Park and the Kobuleti Protected Area in Georgia. They had been asked by the National Park authorities to contribute to the development of a new long term management plan for both areas. The Kolkheti NP and Kobuleti Protected Area harbour a unique mire type: the percolation bog. Percolation bogs occur in areas with a large precipitation surplus evenly distributed over the year, they have a convex shape and the peat is hardly decomposed over a large depth. An explicit surface pattern of hummocks, hollows or pools is absent because of the predominantly vertical water flow, whereas percolation bogs are also less acid than 'normal' bogs because of the rapid water flow.

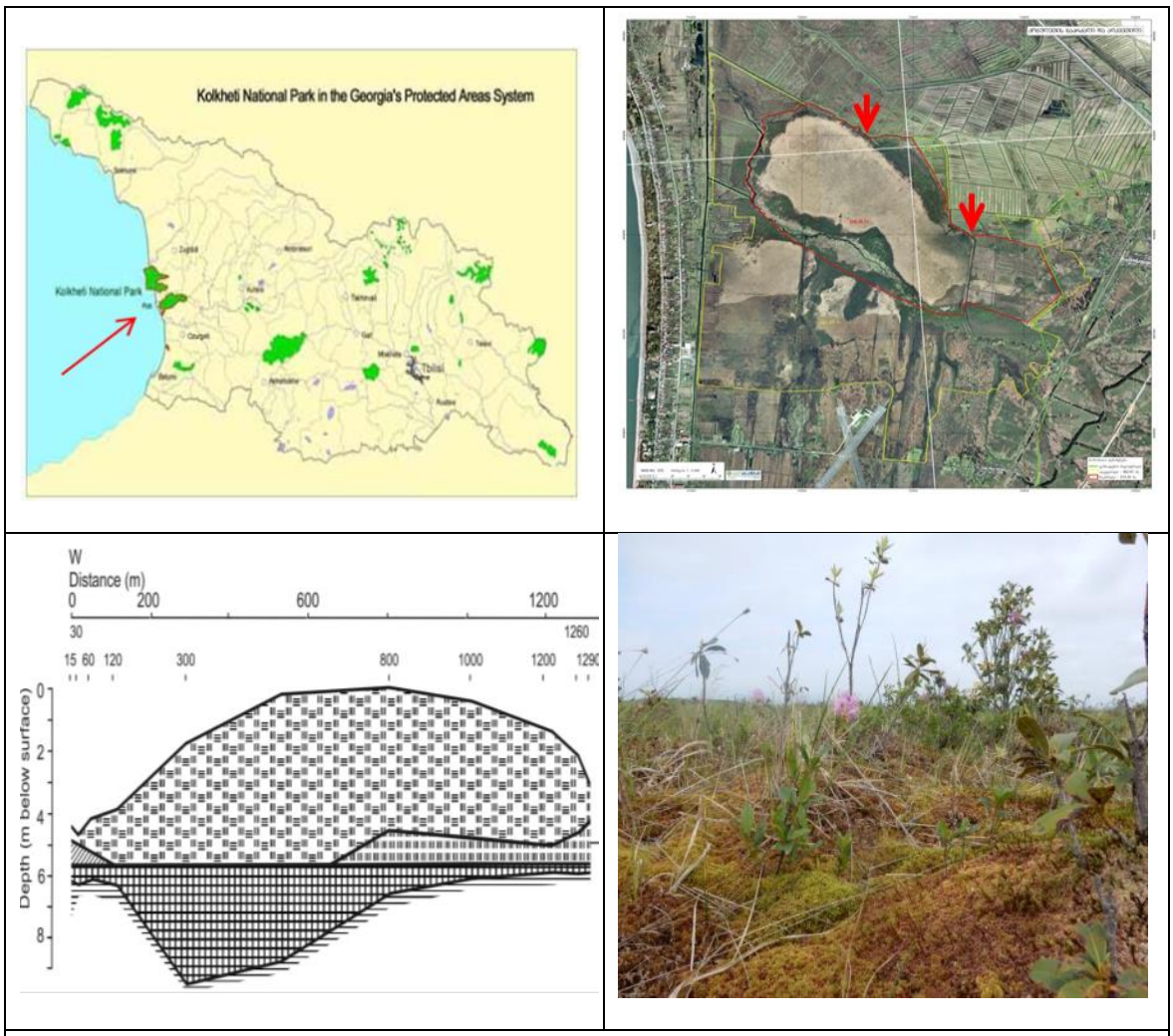

Fig. 1. Kolkheti National Park in the lowlands of Georgia (top left). The aerial photograph (top right) shows Ispani 2 (the bog in the centre). This bog is well-preserved (bottom left), but affected by agricultural drainage channels too close to the border of the protected bog (see the red arrows). The peatland developed ca. 2000 years ago over clay and lake sediments and grew during the last 1000 years as a percolation bog with a rate of almost 4mm per year (de Klerk et al. 2009). The bottom right picture shows a detail of the vegetation with Sphagnum *hummocks and many phanerogams.*

The type locality of this bog type is Ispani-2. The bog is not pristine, since small sections have been damaged by erosion (Fig. 2), but still in a good state. However the bog lacks hydrological buffer zones and some agricultural drainage systems almost directly border the reserve (Figs 1 and 2). The eastern part of the bog is even dissected by a drainage channel that was constructed to drain the eastern part of the bog, and at present also transports drainage water from surrounding agricultural areas. There is continuing pressure to 'clean' the drainage channels in the agricultural surroundings, but in reality this 'cleaning' implies deepening and widening of the channels.

Recent deepening of the Togona stream directly north of the bog has not only triggered erosion in the above-mentioned dissection channel, but has also induced several 'bog bursts' in Ispani 2. In a bog burst not only water is flowing into drainage channels, but also part of the peat itself (Fig. 2). The bog burst triggers subsidence in the bog leading to additional water losses from a large area of the bog (possibly extending more than 100 meters into the bog).

A

B

Fig. 2. A: Bog burst: outflow of peat from Ispani-2 into the adjacent deepened Togona stream. B: Subsidence and desiccation of the adjacent bog area.

In the present situation (Fig. 3), Ispani-2 is directly impacted by deep agricultural water channels, which four years ago even have been deepened. To protect and restore the mire, the drainage system has to be eliminated both within the reserve and around the bog where the channels directly impact the bog. This means that the agricultural drainage system has to be reconstructed in such a way that it directs the surface water to the North, not in the direction of the bog, as in the present situation. The drainage channels in the direct vicinity of the bog should all be closed and land use should change into agriculture or forestry under wet conditions (paludiculture). .

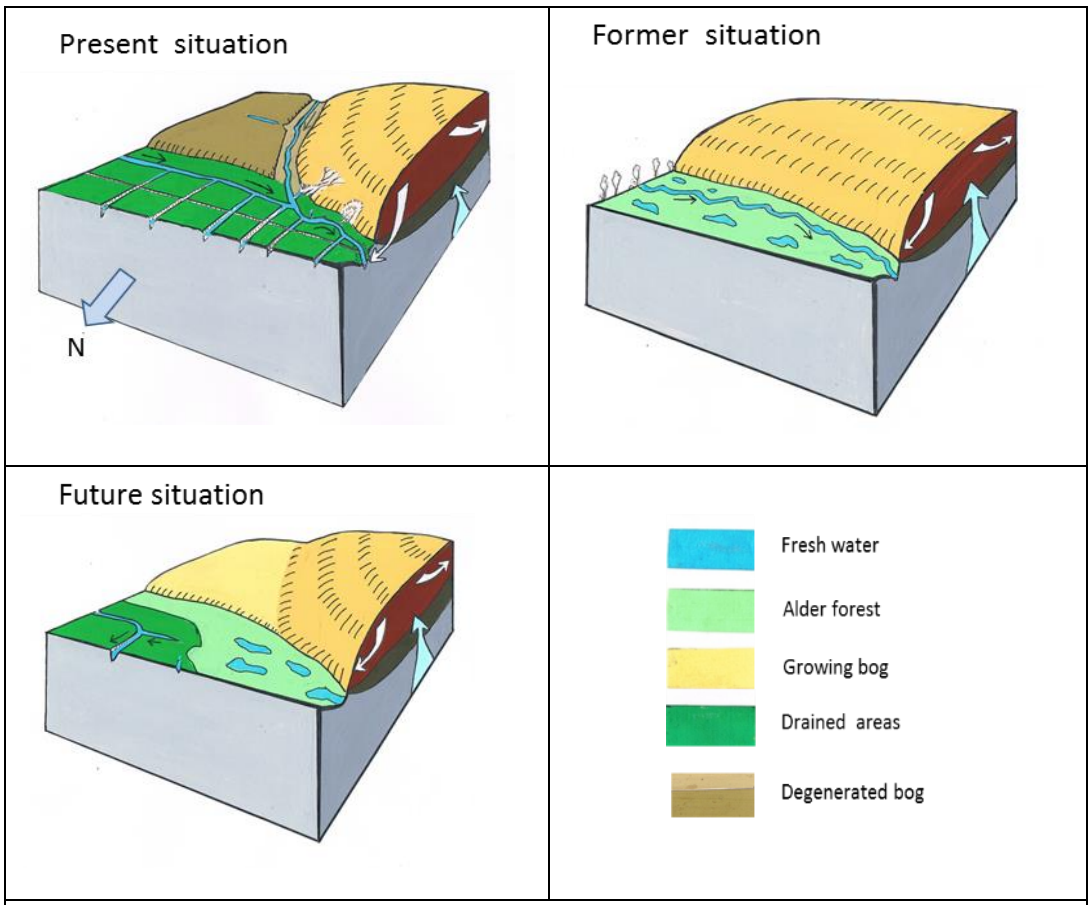

Fig. 3. Present situation of Ispani-2, in which agricultural drainage systems affect the bog reserve, because they are too close to the borders of the bog (top left). A reconstruction of the former situation shows that shallow rivers existed before (top right). In a future situation the areas bordering the bog should be rewetted and the agricultural drainage system should be reconstructed in such a way that it directs the surface water to the North and then to the large rivers that bring the water to the Black Sea.

A similar situation also exists upstream of the Kolkheti National Park (Fig. 5). Improving conventional agriculture by drainage is no realistic option in these areas with thick clay soils, high precipitation (1500-2400 mm/year), and increased water supply from the deforested upstream catchment area, which result in regular floods. The current deepening and widening of the old drainage channels constructed in Soviet times (Fig. 4A) builds on the idea that superfluous surface water should be transported in the direction of the sea as quickly as possible. In those downstream areas, however, most economic value creation takes place: in the city and port of Poti, in the touristically important dune zone, and in the Kolkheti National Park, which all are burdened by oversupply of water and regular flooding. Since no buffer zones exist and the drainage channels are often situated in the immediate surroundings of the protected areas, the channels furthermore do affect the protected areas negatively by lowering the deep groundwater level, which is relevant for supplying seepage water to the Kolkheti fen peatlands. On the other hand, in the agricultural areas on thick clay soils, the channels do not result in making the agricultural areas any drier during the vegetation season, because the high rainfall immediately rewets the soils (Fig. 4B). So a situation results that a low value area is not improved, whereas the valuable areas are damaged.

A

B

Fig. 4. Photo A shows a 4-6 meter deep drainage channel, aimed at rapid discharge of surface water in order to avoid long term flooding in agricultural areas. On the left it can be seen that the pressure of groundwater is causing the channel wall to slip into the channel. However, these costly measures do not seem to have any effect, since a permanent wetland is found within 50 meters of the channel. The channel only succeeds in transporting large amounts of floodwater to the coast, but it hardly influences water levels in the direct agricultural surroundings.

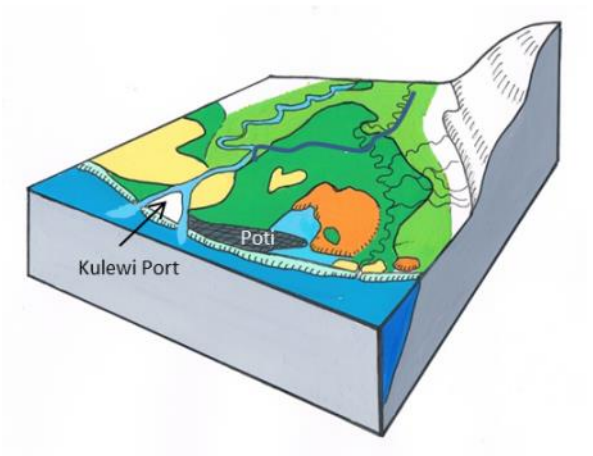

Fig. 5. Impression of the Kolkheti National Park in Georgia showing the town of Poti and the expanding Kulewi Port. The mires are situated close to the coast and are protected against the influence of the Black Sea by a very narrow strip of low dunes.

A

B

Fig. 6. Photo A shows the small coastal strip between the Black Sea on the right and a fen (Churia) on the left. The boundaries of the National park have been changed here in order to allow the future construction of a high way on the coastal strip. Photo B gives an overview of the effects of coastal defence structures close to the expanding Kulewi Port. The defence structure for the port creates severe erosion in the coastal strip.

The Kolkheti National Park is furthermore being threatened from the other side by initiatives to build new oil terminals near the coast and to expand the Kulewi harbour. The borders of the National Park have been changed for that purpose and there are plans to build a new highway on the shallow dunes of the coastal strip (Fig. 6A). These activities are threatening the fragile structure of the protected ecosystems that are present here. Considerable erosion has recently arisen from the new coastal 'defence' structures around the Kulewi Port (see Fig. 6B).

The new long-term management plans for the protected areas in the Georgian lowlands aim to describe all possible threats for the area and to formulate possible solutions and management strategies that will allow a sustainable future for both the protected areas and the people that are living in the area.

Further reading:

de Klerk, P., Haberl, A., Kaffke, A., Krebs, M., Matchutadze, I., Minke, M., Schulz, J. & Joosten, H. 2009. Vegetation history and environmental development since ca 6000 cal yr BP in and around Ispani 2 (Kolkheti lowlands, Georgia). Quaternary Science Reviews 28: 890-910.

Krebs, M., Kaffke, A., de Klerk, P., Machutadze, I & Joosten, H. 2009. A future for Ispani 2 (Kolkheti, Georgia) and adjacent lands. IMCG Newsletter 2009-2: 3-14.

Indonesia

Indonesia prepares detailed peatland map

The Indonesian Peatland Restoration Agency (BRG), tasked with restoring more than 2.6 million hectares of damaged peatland, is boosting the resolution of the national peatland map from the current scale of 1:250,000 to 1:50,000. "We are going to produce a detailed map up to 50,000 scale or even 2,500 scale. That map will show the real condition and the depth of peatland," BRG head Nazir Foead said. The high-resolution map would be available by end of this year, covering 860,000 hectares of the agency's priority restoration area.

The government has never had a high-resolution map before, which has also led to many problems, such as concessions eating up indigenous land and difficulties to enforce law on companies carrying out slash-and-burn practices as the boundaries between concessions are not clear. But the high-resolution map aims to solve those problems, with the government planning to use it to determine the category of individual peatland areas, separating them into either protected or cultivated areas.

The BRG also plans to install a monitoring scheme that would monitor peat condition in real time, using Sensory Data Transmission Service Assisted by Midori Engineering (SESAME), a tool that can measure water levels in real time.
http://www.thejakartapost.com/news/2016/07/02/govt-urges-concession-owners-come-clean-it-prepares-detailed-map.html

New tool to predict fire risks unveiled as Indonesia's dry season takes hold

A map using satellite technology to warn of fire risks aims at helping Southeast Asian governments better deploy their resources to combat raging blazes, which cloak the region in haze every year. Slash-and-burn agriculture, much of it clearing land for palm oil crops, blanketed Singapore, Malaysia and northern Indonesia in a choking "haze" for months last year.

Updated daily, the Fire Risk Map calculates the risk of a fire catching and spreading using the latest satellite data on temperature, humidity and rainfall in the region. Drier conditions signal higher risks of blazes starting and spreading.

"We expect the Fire Risk Map to help government officials and company land managers to be more proactive about fires," Susan Minnemeyer, a forest fire expert at Global Forest Watch, told the Thomson Reuters Foundation. The Washington-based non-profit developed the tool with environmental group Conservation International.

The groups said although most of Indonesia's fires are started by locals to clear land, the levels of land dryness can indicate how flammable the fires are and whether they will blaze out of control.

The tool will gives officials, companies and local communities a chance to take action before fires start, for example by retaining water for firefighting and deploying resources to places where fires are likely to spread.

Indonesia experiences its dry season from June to October, but last year's fires were worse due to El Nino, a warming of sea-surface temperatures in the Pacific, which caused tinder-dry conditions and helped keep forests burning until mid-November.
http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=3337

Bornean orangutan declared 'critically endangered'

The Bornean orangutan (*Pongo pygmaeus*) is now critically endangered according to the International Union for Conservation of Nature (IUCN). This change means that both species of orangutan now face an "extremely high risk of extinction in the wild."

Published early July, the new IUCN assessment finds that hunting, habitat destruction, habitat degradation and fragmentation are the biggest drivers behind the population loss.

In 2010, only 59.6% of Borneo's forests were suitable for orangutans. And, while much of this land is technically protected by the Indonesian, Malaysian and Brunei governments, illegal logging and uncontrolled burning are still continual threats. In addition, the smaller patches of remaining forest may be unable to sustain the groups currently living there. These zombie orangutan populations can adapt to survive for decades in degraded or isolated habitats, but the poor health or low numbers may prevent successful reproduction. On the other end of the issue, since females only reproduce once every six to eight years — the longest birth interval of any land mammal — orangutan numbers are slow to rebound in the wake of meaningful improvements.

These lags are one reason for the IUCN assessment which considers past, current and future rates of species loss. The authors write that "the combined impacts of habitat loss, habitat degradation and illegal hunting equate to an 86% population reduction between 1973 and 2025."

This meets criteria A4 of the IUCN definition for "critically endangered": "an observed, estimated, inferred, projected or suspected population size reduction of ≥80% over any 10 year or three generation period…where the reduction or its causes may not have ceased."
https://www.theguardian.com/environment/2016/jul/07/bornean-orangutan-declared-critically-endangered-as-forests-shrink

Indonesia declares national park in top palm oil-producing province

A wildlife reserve and surrounding areas on Indonesia's main western island of Sumatra were declared the country's newest national park on the occasion of World Environment Day, June 5, 2016.

Zamrud National Park is located in the Siak district of Riau province, whose vast peat swamps have been widely drained for oil palm and pulpwood production, causing annual fires that envelop the region in a toxic haze. During September and October last year, the fires released more carbon than the entire EU.

The peat-rich Zamrud spans 31,480 hectares and is home to two major lakes — Pulau Besar Lake and Bawah Lake — and 12 protected bird species, according to government data. Rare mammals like the Sumatran tiger (*Panthera tigris sumatrae*) and sun bear (*Helarctos malayanus*) also live there.

Due to weak law enforcement and corruption, large parts of Riau's other national parks, Tesso Nilo and Bukit Tigapuluh, have been trashed by encroachers. Tesso Nilo in particular is home to a multitude of illegal oil palm plantations which are regularly linked to the supply chains of multinational companies like Unilever and Nestle, which have pledged to eliminate deforestation from their supply networks. According to the World Resources Institute more than 40% of Riau's forests have been cleared for industrial concessions since 2001.

Encroachment in the area of the previously declared Tasik Serkap Wildlife Reserve, which makes up much of the new park, has been increasing, Riau governor Arsyadjuliandi Rachman said after the announcement of Zamrud's establishment. "The forest at Giam Siak Kecil [a nearby peatland area] has been destroyed by encroachment," Siak district head Syamsuar said at the event. "If encroachers run out of room there, they will certainly move on to Zamrud. It is just a matter of time. That's why we need to start protecting it now."

http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=3372

Malaysia

Singapore youth blocking ditch in Raja Musa Forest Reserve, Malaysia (Photo: Global Environment Centre).

Singapore youth supports Malaysian restoration

From 29th to 31st July, a group of 20 Singaporean youths visited Raja Musa Forest Reserve to learn about peatland conservation and assist in rehabilitation efforts on the ground. The team comprised members of P.M. Haze, a movement with a mission to empower people with the values, knowledge and means to stop haze. They went to the rehabilitation site as well as the forest reserve near Sungai Sireh Homestay. And they helped

to build a canal block, to raise the water level and restore hydrology in the forest reserve. The cost of the visit was sourced through crowd-funding, making it essentially funded by the people of Singapore. It is indeed heartening to see international cooperation in combating haze, instead of blaming others. We hope that this trend will continue for the benefit of all.

See also: http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=3327

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Mongolia

Community based peatland conservation and wise use strategies

A workshop "Community-based peatland conservation and wise use strategies in Mongolia" was held 25-29 July 2016 in Kharkharin, Arkhangai aimag, Mongolia. The workshop was held to demonstrate and exchange experiences on wise use and conservation of peatlands as part of the strategic planning for peatlands program in Mongolia. The Orkhon valley was discussed a possible UNESCO Biosphere Reserve, in which Orkhon Valley National Park would be integrated.

Permafrost peatland in Darhad depression, Hovsgol Province, northern Mongolia (Photo: Hans Joosten)

A total of 73 Mongolian participants attended in the workshop, representing a wired range of stakeholders, including representatives of provinces and local communities, managers of protected areas, representatives of Citizen Social organizations, enterprises, NGOs and Scientific Research organizations. Heads and officers of the Ministry of Environment, Green Development, and Tourism (MEGDT) were regretfully not able to attend the workshop due to re-establishment of a new Government and ministry structure, but after the workshop meetings were held among the State secretary of the MEGDT, relevant heads of the departments, and heads of the National committees of UNESCO, RAMSAR and Biosphere reserves. International experts, including the Ramsar Secretariat, the German MAB National Committee, Wetlands International and the Greifswald Mire Centre, presented on overview on peatland restoration and conservation strategies worldwide. During the workshop and field visit, local officers and communities exchanged their views with the international experts and organized group discussions.

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Some notes on peatland conservation and management in Mongolia

People generally understand that "hudyr namag" (peat mires) are useful, but do not understand that "hudyr"= peat is not just "chernozem", but a unique substance, which is vulnerable to any misuse. The important role that peatlands play in water supply is well understood by herders and local water authorities, but not by all engineers. Also an integrative approach to land use planning is accepted, but several processes on the landscape level are still insufficiently known by the stakeholders.

Generally there are no major obstacles to introduce wise use on the local level, but difficulties may arise from national level economic processes and incentives, like industrialisation of pastoralism, the upscaling of tourism without appropriate regulations, mining concessions to investors from foreign countries without appropriate limitations etc.

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Peatland conservation and wise use workshop in in Kharkharin, Mongolia, July 2016 (Photo: Tatiana Minayeva)

Singapore

Singapore to pursue firms over fires, despite Indonesian ire

Singapore is refusing to back down in its pursuit of those responsible for haze-belching fires in Southeast Asia last year, despite struggling to bring the perpetrators before the courts and drawing a sharp rebuke from neighbouring Indonesia. “We are going after, to put it starkly, the bad guys that are causing this problem,” according to Singapore’s ambassador to Indonesia Anil Kumar Nayar. However, the city-state’s efforts to punish Indonesian companies under its own anti-haze law have become a flashpoint with Jakarta. Singapore argues that international rules allow states to take action — even if harm is being caused by activities outside its jurisdiction — but Jakarta has questioned how Singapore could pursue Indonesian citizens for prosecution, especially in the absence of a ratified extradition treaty between the neighbours.

“Singapore cannot step further into Indonesia’s legal domain,” Indonesia’s Environment Minister Siti Nurbaya Bakar told reporters in June. Nayar reiterated that Singapore wasn’t crossing any line pursuing these companies and was within its rights to enforce its law. The law threatens local and foreign firms with fines of up to $100,000 Singaporean dollars (US$74,000) for every day Singapore endures unhealthy haze pollution. Jakarta has promised tougher action in the wake of last year’s haze disaster.

http://www.theborneopost.com/2016/07/03/singapore-to-pursue-firms-over-fires-despite-indonesian-ire/#ixzz4DwEWvPTA

Australia/Oceania

Australian supports Indonesian peatland restoration

The Australian Centre for International Agricultural Research (ACIAR) has commissioned a scoping project to ascertain how Australian-Indonesian research collaboration could support Indonesia' commitment to restoring its degraded peatlands. Neighbours with many common interests, Australians and Indonesians have been working together on ACIAR's research for development projects for over 30 years. The high priority placed on peatland restoration, as indicated by the establishment of the Indonesian Peatland Restoration Agency (BRG), has inspired the new project "Soil management for Indonesian peatland restoration". The project aims to evaluate the multidisciplinary research needed to ensure that peatland restoration is based on a sound scientific understanding of the unique physics and chemistry of peat soils and accurate mapping of peatland distribution. Potential partnership arrangements with the relevant government agencies and research institutions in Indonesia and Australia will be explored in order to identify the most pressing research questions and possible approaches to answer them. The project began in July 2016 and is based at La Trobe University's Centre for AgriBioscience (Dr Samantha Grover) and The University of Sydney's Centre for Carbon, Water and Food (Professor Budiman Minasny).

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Samantha Grover and son Rory in the Sphagnum *peatland of Baw Baw Plateau, Australia (Photo: S. Venn 2014).*

Europe

European Union

People4Soil

The EU-Commission has last week decided to register the European Citizens' Initiative „People4Soil". People4Soil is a free and open network of European NGOs, research institutes, farmers associations and environmental groups. The Initiative wants to put pressure on European institutions to adopt specific legislation on soil protection, fixing principles and rules to be complied by the Member States. "We want Europe to recognize soil as a common good essential for our lives and to assume its sustainable management as a primary commitment." IMCG considers joining the initiative to strengthen the position of organic soils. More information: http://www.people4soil.eu/index-en.php

Refit check of EU conservation directives

One of the major environmental issues of the last decades in the EU is the so-called Refit check of the EU Birds and Habitats directive. These Directives ("Natura 2000") are legal obligations to protect nature throughout the EU, an achievement conservation organisations in other continents are jealous of. Somewhat more than a year ago the European Commission decided to evaluate whether this legislation is fit for its purpose. Such evaluation has happened before with other legislation but in this particular case it was suspected that one of the major goals of this so-called Refit procedure was to weaken the legislation. Whatever the reason was, until now the existing legislation has come out stronger than before. Part of the procedure was an online public consultation, which was answered by 552,472 replies, by far the largest response the Commission has ever received to an online consultation. The overwhelming part of the response was positive, i.e. people found that the directives were fit for their purpose and should remain as they are.

Another part of the procedure consisted of an evaluation study by three consultancies to check whether the directives are (1) Effective in meeting their objectives.(2) Efficient in the use of the resources needed for the achievement of the objectives. (3) Relevant given the current needs and circumstances. (4) Coherent both internally and with other EU legislation, policies and measures, and (5) whether the Directives represent EU added value. This study was made available to the public early July and comes also to the conclusion that the directives are fit: http://www.euractiv.com/wp-content/uploads/sites/2/2016/06/draft-FC-study-copy-2.pdf

Regarding the rest of the procedure:

- The majority of EU governments, including Germany, Poland, Spain, France, Slovenia, Italy, Croatia, Luxembourg, Romania, Greece, Belgium, Czech Republic, Slovakia, Bulgaria and Hungary, as well as the UK's prime minister David Cameron (…), have also stressed the importance of maintaining the Nature Directives and focusing on better implementation; the Dutch Presidency had itself also expressed the need for a strong focus on better implementation of the legislation.
- In addition, in February 2016 the European Parliament came out strongly in favour of not revising the Directives, with 86% of its members stressing that full implementation and enforcement of the Nature Directives is a vital prerequisite for ensuring the success of the EU Biodiversity Strategy.
- Recently, the Environment Committee of the European Parliament and some Environment Ministers have reinforced the need for urgent action by the Commission.

The European Commission's Communication on the results of the Fitness Check has been postponed to autumn and is expected to be finally voted by the Environment Council in December 2016 but –given the above- it is hardly imaginable that they will come to the conclusion that the directives need to be revised.

In a period of increasing eurosceptism and nationalism with the Brexit as an all-time low the Refit outcome is a very positive sign!

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Ireland

Bord na Mona profit slides 50% amid power station writedowns

Profit at Bord na Móna fell by about 50 per cent in the year to March as it wrote down the value of two power stations in Edenderry and booked loss on the wind-up of its Anua air and water treatment business.

Net profit at the State-owned company fell to €17.3 million from €35 million for the 12 months to March 2015.

Revenues at the firm rose by 6 per cent during the year to €432.8 million, as sales in its Mountlucas and Bruckana wind farms increased by €13.8 million in their first full year of operation and waste treatment sales at its Drehid facilities rose by €9.3 million.

“If you went back 10 years, just 2 per cent of the electricity Bord na Móna produced was generated from renewable. Today we are at 48 per cent,” said chief executive Mike Quinn. “Given our pipeline of wind, biomass and other renewable energy projects, by 2020 we know it will be 70 per cent and by 2030 it will be 96 per cent.”

http://www.irishtimes.com/business/energy-and-resources/bord-na-mona-profit-slides-50-amid-power-station-writedowns-1.2732939

Rare species are making a comeback in midland bogs

The marsh fritillary butterfly, the only butterfly protected by EU habitats directive, is now "colonising" on Bord na Móna cutaways. The marsh helleborine, a pretty orchid native to Europe, Turkey, Iraq, Iran, Siberia and Central Asia, has been found on boglands from Roscommon to Tipperary. Meanwhile, the curlew, now one of rarest and most iconic birds of the rural Irish landscape, has been found on several sites where Bord na Móna are carrying out bog restoration. Seven breeding pairs were recently recorded on Ballydangan/Knock bog in Co Westmeath.

Gerry Ryan, head of land and property at Bord na Móna, equates the success to the company's inaugural Biodiversity Action Plan 2010-2015. "We have taken action to stabilise the cutaway peatlands by reblocking drains, introducing vegetation on to the peatland and, in some cases, putting fertiliser down to encourage willow to grow," he said. "Our activity has created situations where species that were previously threatened or are currently threatened have been promoted."

Over the past two decades, BNM have rehabilitated around 12,000 hectares of peatland – 15% of its total landholdings (80,000 hectares). Mr Ryan says the company will adopt the same approach to their new Biodiversity Action Plan 2016-2021, launched in April. "Our strategy, outlined last year in Sustainability 2030, is a vision of a future where Bord na Móna is a sustainable, profitable company, committed to protecting the environment and delivering benefits to the community and to our employees."

http://www.independent.ie/business/farming/rare-species-are-making-a-comeback-in-midland-bogs-34893427.html

United Kingdom

IUCN UK Peatland Programme's 6th Annual Conference: Creating a Legacy for Peatlands

Shropshire Conference Centre, Shrewsbury: 29th November - 1st December

Tickets are now on sale for the next conference, which will bring together policy-makers, restoration practitioners, researchers, landowners and more. The conference has built up a reputation for being the only place where the whole peatland community come together.

In the wake of 'Brexit' we will explore the financial, policy and regulatory implications for UK peatlands and endeavour to find the solutions to turn around the peatland issue, creating lasting management structures that see the United Kingdom continue as leaders in the global effort to look after our peatland natural capital and leave future generations a healthy, functioning landscape. Join us by booking your place today and receive a special early bird discount.

The Peatland Code

Over the past few months Peatland Code priorities have been firmly focused on raising the profile of peatland restoration and the multiple benefits it can provide. A series of events were held in London and Edinburgh, in association with Savills and Scottish Land and Estates, to highlight the need for restoration and the role the Peatland Code can play in facilitating restoration. These events were aimed solely at engaging the support of both landowners and socially responsible investors, without which the Peatland Code will be unable to effectively deliver the provision of ecosystem services. These events have created numerous new relationships that the Peatland Code team will be taking forward as they move to trial the first validations against the Code.

Cumbria BogLIFE mid-project conference: Restoring peatlands – The development of best practice techniques

4–6 October 2016, Penrith, Cumbria, UK

This three-day conference will showcase some of the most successful and innovative peatland restoration projects from across the UK and continental Europe. It will bring together land managers, researchers and other peatland professionals to share experience and knowledge, and discuss the development of best practice. The conference will consist of a mix of presentations, workshops and site visits. Although with a strong bias towards raised bog, it will be of great interest to anyone involved in peatland restoration work.

Scottish Ministers win appeal over wind farm consent decision

Scottish Ministers have successfully challenged a judge's decision to reduce a planning consent granted for the development of a new wind farm near Fort Augustus. Last year conservation charity John Muir Trust successfully blocked the Scottish Government's decision to approve the development at a judicial review hearing, claiming the required planning procedures regarding environmental impacts and objections to the project had not been properly followed. The charity also claimed the project would be a blight on a "precious area of wild Scotland" which is home to a large area of peatland.

However, Scottish and Southern Energy (SSE) and the Scottish Government appealed the judicial review decision, and won their case at the Court of Session in Edinburgh. In the published judgment, Lord Carloway, the lead judge in the case, said "careful consideration was given to the visual impact of the development and its effect on the wild land upon which it was to be built" in the original planning decision letter.

John Muir Trust expressed its disappointment with the Court's decision, adding that it was now taking further legal advice and "considering options as to our next steps". "We are extremely disappointed by the decision," said Stuart Brooks, chief executive of the John Muir Trust. "We are confident that we did the right thing by challenging this decision – standing up against a scheme that could industrialise and decimate a precious area of wild Scotland."

http://www.scottishconstructionnow.com/13745/scottish-ministers-win-appeal-over-wind-farm-consent-decision/

Flow Country viewing tower at Forsinard in Sutherland wins at RIAS centenary celebration.

The Peatlands Partnership is celebrating the success of the Flows Lookout at a top architectural award ceremony, which was held in Edinburgh. The Royal Incorporation of Architects in Scotland Awards represent the very best in current Scottish architecture.

Flows Lookout Tower, the new innovative viewing tower built at RSPB Scotland's biggest nature reserve, Forsinard Flows in Sutherland, was named one of eleven best buildings of the year at these prestigious awards.

It was also commended in the Special Category Wood for Good/Forestry Commission Scotland Award for the Best Use of Timber, while the Peatlands Partnership was shortlisted in the Client of the Year Award category.

The viewing tower, designed by Icosis Architects of Edinburgh, and constructed by O'Brien Construction of Thurso, has also been winning plaudits from thousands of visitors to the nature reserve. It allows visitors to enjoy spectacular views of the unique internationally important landscape of the Flow Country.

The Flows Lookout was funded by the European Regional Development Fund, Scottish Natural Heritage, RSPB Scotland and the Highland Council, as part of the £10.6 million Heritage Lottery Funded Flows to the Future Project. This project is also restoring seven square miles of damaged peatlands, creating a visitor and

interpretative trail around the Flow Country in Sutherland and Caithness, developing a new website, online carbon capture game and 3D virtual model of the Flows, as well as updating the Forsinard Flows visitor centre and building a new field centre for researchers and volunteers.
http://www.iucn-uk-peatlandprogramme.org/news-and-events/news/peatland-lookout-tower-scoops-top-architectural-award

Peatland restoration in the Shetlands

About half of Shetland is covered in peat, of which 70% is estimated to be damaged. Meanwhile, the fishing industry is Shetland's biggest sector with about 25,000 tonnes of farmed salmon produced each year.
Shipping materials or equipment for peatland restoration to Shetland is costly in both £s and carbon, leading the Shetland Amenity Trust to take an innovative and resourceful approach to sourcing materials and techniques by using waste materials from the aquaculture industry to build dams and stabilise bare peat. Not only have these techniques proved remarkably successful but have also reduced the cost and carbon footprint of the projects.
Peatland restoration in Shetland has been kick started over the last two years by funding from SNH's Peatland ACTION Fund. This funded a Peatland Restoration Project Officer and three peatland restoration projects resulting in the construction of over 1,000 dams benefitting about 150 hectares of blanket bog.
http://www.iucn-uk-peatlandprogramme.org/news-and-events/news/peatland-restoration-shetlands

North-America

Canada

Petition launched to save Burns Bog

The Burns Bog Conservation Society has launched a petition to try prevent industrial development on 155 acres of raised peat bog in Canada. Home to the endangered sturgeon, the Conservation Society are hoping to prevent MK Delta Lands Group from creating an industrial park on the site. Download factsheet here

United States

Session on 'New insights and approaches for recent dating of peat and aquatic sediments' on AGU

Establishing chronologies of peats and sediments on a 10^2-year (recent) timescale is important for quantifying processes such as carbon sequestration, vertical accretion, and changes in contaminant loading in a range of wetland and aquatic ecosystems. Determining uncertainties in dating is key to achieving good estimates, yet, of the many approaches available (i.e., ^{137}Cs, ^{210}Pb, ^{14}C wiggle-matching, fly ash, tephra, organic and inorganic pollutant time markers, ^{241}Am, ^{207}Bi, pollen, etc.), few routinely incorporate error analyses. For this session, we are interested in assessing uncertainties in recent dating methods and identifying conditions under which a particular technique works best, fails or has high uncertainties and why.
https://agu.confex.com/agu/fm16/preliminaryview.cgi/Session12833

Peatland conservation relevant papers July 2016

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

1. Mitigating wildfire carbon loss in managed northern peatlands through restoration: http://dx.doi.org/10.1038/srep28498
2. Field measurements of trace gases and aerosols emitted by peat fires in Central Kalimantan, Indonesia during the 2015 El Niño: http://www.atmos-chem-phys-discuss.net/acp-2016-411/
3. Vegetation change and conservation status of Coastal Upland Swamps: http://onlinelibrary.wiley.com/doi/10.1111/emr.12220/abstract?campaign=wolearlyview
4. Community motivations to engage in conservation behavior to conserve the Sumatran orangutan: http://onlinelibrary.wiley.com/doi/10.1111/cobi.12650/abstract?campaign=woletoc
5. Vulnerability of the peatland carbon sink to sea-level rise: http://www.nature.com/articles/srep28758

6. Rapid carbon loss and slow recovery following permafrost thaw in boreal peatlands: http://onlinelibrary.wiley.com/doi/10.1111/gcb.13403/abstract
7. Summer fluxes of methane and carbon dioxide from a pond and floating mat in a continental Canadian peatland: http://www.biogeosciences.net/13/3777/2016/
8. Drying increases peat-bog fire hazard: http://iop.msgfocus.com/c/161UsazYvAmDBqGYc4cvcv4q9
9. Persistent high temperature and low precipitation reduce peat carbon accumulation: http://onlinelibrary.wiley.com/doi/10.1111/gcb.13433/abstract?campaign=wolacceptedarticle
10. Effects of permafrost thaw on nitrogen availability and plant-soil interactions in a boreal Alaskan lowland: http://onlinelibrary.wiley.com/doi/10.1111/1365-2745.12639/abstract?campaign=wolacceptedarticle
11. Water level, vegetation composition, and plant productivity explain greenhouse gas fluxes in temperate cutover fens after inundation: http://www.biogeosciences.net/13/3945/2016/bg-13-3945-2016.html
12. Canadian Model for Peatlands Version 1.0: A Model Design Document: https://cfs.nrcan.gc.ca/publications?id=37017
13. Long-term influence of sod cutting depth on the restoration of degraded wet heaths: http://onlinelibrary.wiley.com/doi/10.1111/rec.12412/abstract?campaign=wolearlyview
14. Geochemical evidence for peat bog contribution to the streamflow generation process: case study of the Vltava River headwaters, Czech Republic: http://www.tandfonline.com/doi/full/10.1080/02626667.2016.1140173
15. Transformations of landscape and peat-forming ecosystems in response to late Holocene climate change in the western Antarctic Peninsula: http://onlinelibrary.wiley.com/doi/10.1002/2016GL069380/abstract?campaign=woletoc
16. Past mining activities in the Vosges Mountains (eastern France): Impact on vegetation and metal contamination over the past millennium: http://hol.sagepub.com/content/26/8/1225?etoc
17. Influence of climate change and human activities on the organic and inorganic composition of peat during the 'Little Ice Age' (El Payo mire, W Spain): http://hol.sagepub.com/content/26/8/1290?etoc
18. Climate, pollution and grazing drive long-term change in moorland habitats: http://onlinelibrary.wiley.com/doi/10.1111/avsc.12260/abstract?campaign=wolearlyview
19. The role of the seed bank in recovery of temperate heath and blanket bog following wildfires: http://onlinelibrary.wiley.com/doi/10.1111/avsc.12242/abstract
20. Alkaline fens: Valuable wetlands but difficult to manage: http://norden.diva-portal.org/smash/get/diva2:918221/FULLTEXT02.pdf
21. Impact of the June 2013 Riau province Sumatera smoke haze event on regional air pollution: http://iopscience.iop.org/article/10.1088/1748-9326/11/7/075007/meta;jsessionid=13C33FFBC15B14E18EE89175A42064DB.c1.iopscience.cld.iop.org
22. Regional carbon fluxes from land use and land cover change in Asia, 1980–2009: http://iopscience.iop.org/article/10.1088/1748-9326/11/7/074011
23. The oil palm complex: Smallholders, agribusiness and the state in Indonesia and Malaysia: https://www.amazon.de/Oil-Palm-Complex-Smallholders-Agribusiness/dp/9814722065/ref=sr_1_1?ie=UTF8&qid=1470042208&sr=8-1&keywords=The+Oil+Palm+Complex
24. Catastrophe and regeneration in Indonesia's peatlands : Ecology, conomy and society: http://www.bookdepository.com/Catastrophe-and-Regeneration-in-Indonesis-Peatlands-Kosuke-Mizuno-Motoko-S-Fujit-Shuichi-Kawai/9789814722094?ref=grid-view/?a_aid=83
25. Peat soil bulk density important for estimation of peatland fire emissions: http://onlinelibrary.wiley.com/doi/10.1111/gcb.13364/abstract?campaign=woletoc
26. The Everglades handbook: Understanding the ecosystem (4th ed.): http://www.nhbs.com/title/11991/the-everglades-handbook?bkfno=185044&ad_id=562
27. The influence of vegetation and soil characteristics on active-layer thickness of permafrost soils in boreal forest: http://onlinelibrary.wiley.com/doi/10.1111/gcb.13248/abstract?campaign=woletoc
28. Direct and indirect effects of glaciers on aquatic biodiversity in high Andean peatlands: http://onlinelibrary.wiley.com/doi/10.1111/gcb.13310/abstract?campaign=woletoc
29. Holocene ice-wedge polygon development in northern Yukon permafrost peatlands (Canada): http://www.sciencedirect.com/science/article/pii/S0277379116300403
30. Colombia Anfibia. Un país de humedales. Volumen 1: http://www.humboldt.org.co/es/component/k2/item/download/275_089e9ec26b5b9a703f504c67a6647cd0
31. Colombia Anfibia. Un país de humedales. Volumen 2.: http://www.humboldt.org.co/es/component/k2/item/download/301_0f6e1e3b709aecae9624ad65a34f9622

32. Carbon emission along a eutrophication gradient in temperate riverine wetlands: effect of primary productivity and plant community composition: http://onlinelibrary.wiley.com/doi/10.1111/fwb.12780/abstract?campaign=woletoc
33. Why do reed beds decline and fail to re-establish? A case study of Dutch peat lakes: http://onlinelibrary.wiley.com/doi/10.1111/fwb.12801/abstract?campaign=woletoc
34. Tropical/subtropical peatland development and global CH_4 during the last glaciation: http://www.nature.com/articles/srep30431
35. Peatland Brief: Can peatland landscapes in Indonesia be drained sustainably? An assessment of the 'eko-hidro' water management approach: https://www.wetlands.org/download/9672/

Ab Grootjans (l.) and Matthias Krebs measuring water quality in Ispani 2 (Georgia, see p. 6) (Photo: Hans Joosten)