INTERNATIONAL MIRE CONSERVATION GROUP

NEWSLETTER

issue 2002/1, April 2002

The International Mire Conservation Group (IMCG) is an international network of specialists having a particular interest in mire and peatland conservation. The network encompasses a wide spectrum of expertise and interests, from research scientists to consultants, government agency specialists to peatland site managers. It operates largely through e-mail and newsletters, and holds regular workshops and symposia. For more information: consult the IMCG Website: http://www.imcg.net

IMCG has an elected Main Board of 15 people (14 since the death of Chairman Ton Damman) from various parts of the world that has to take decisions between congresses. Of these 15 an elected 5 constitute the IMCG Executive Committee that handles day-to-day affairs. The Executive Committee consists of a Chairman, a Secretary General, a Treasurer, and 2 additional members.

Viktor Masing (†), Hugo Sjörs, and Richard Lindsay have been awarded honorary membership of IMCG.

Editorial

The next IMCG General Assembly (July 2002, Besançon, France) is rapidly approaching. This highest decision making organ of the IMCG will take major decisions with respect to IMCG policy and will elect a new Main Board. Most discussions and decisions will be taken by (e)mail and therefore some strict deadlines have to be kept. This newsletter already features a draft IMCG Corporate Strategy and Action Plan, as well as the presentation of several Main Board candidates.

The technical preparations for the excursion, symposium and congress in France are running smoothly, thanks to the involvement of Philippe Julve and his devoted team.

Many IMCG members from all over the world again succeeded in producing the interesting read of this Newsletter. Thanks to all! Our editing has been as rigorous as always and any mistakes are entirely our responsibility. Please keep sending in material on anything happening regarding mires. Also for information or other things, contact us at the IMCG Secretariat. Address updates should be send to Jan Sliva (sliva@weihenstephan.de). In the meantime, keep an eye on the frequently updated IMCG web-site: http://www.imcg.net

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IMCG General Assembly (Besançon 21 July 2002)

As on the IMCG General Assembly (Congress) on Sunday 21 July 2002 in Besançon (France) only limited time will be available and only a limited number of IMCG members will be able to attend, we plan to arrange (part of) the discussions and decisions by (e)mail. Please send your contributions, amendments, etc. to the Secretariat as soon as possible.

In the following you will find:

- a draft IMCG Strategy and Action Plan, put to the Congress by the current IMCG Main Board
- a presentation of persons who have, up to now, applied as candidate for the new Main Board to be elected at the Congress
- a call for further candidate applications and resolutions.

Participate in the further growth and development of YOUR IMCG!

Preliminary Agenda IMCG General Assembly, France 21 July 2002

1. Opening and Welcome
2. Minutes of the General Assembly of 6th August 2000 in Quebec
3. Biennial report on the state of affairs in the IMCG and on its policy
4. Balance sheet and the statement of profit and loss
5. IMCG Corporate Strategy and Action Plan
6. Membership fee
7. Election of Main Board
8. Conference resolutions
9. Agreement on next venues – 2004 and 2006
10. Any Other Business

IMCG Corporate Strategy and Action Plan (draft)

The beginnings

In 1984, a widely felt need for international exchange on mire conservation issues led to the foundation of the International Mire Conservation Group (IMCG). Its nucleus then was "Western" Europe with its many nations, its long history of peatland exploitation, and continuing threats to its large diversity of peatlands. Since then, a group of research scientists, consultants, government agency specialists, representatives from NGO's, and peatland site managers has been meeting on a regular basis to discuss national and international aspects of mire conservation in a relatively unstructured but open forum.

Development

The global developments of the 1990s changed the mire arena considerably. Geopolitical changes enabled people, knowledge, and ideas to cross the former Iron Curtain in both directions. The internationalisation of economic structures (EU, GATT) necessitated more information exchange and cooperation. The Internet facilitated improved worldwide networks, information exchange, and contact between individuals and organisations. New integral concepts (sustainability, wise use…) and international conventions (Ramsar, CBD, UNFCCC…) defined a long-term and global perspective for problems that were hitherto considered to be only regional. These developments also affected the IMCG.

Consolidation

The IMCG network expanded to include more people from many more countries. Meetings were increasingly held outside of "Western" Europe. The network was challenged to engage in international projects and to intervene in global developments. Gradually the IMCG evolved from a forum for international information exchange to a "global player" that is capable of contributing to mire conservation in a coordinated and structured fashion. Consequently, at its Congress in Quebec (Canada, August 2000) the IMCG decided to formalize its structure and primary objectives.

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

The IMCG's First Corporate Strategy

At the 2002 IMCG Congress in Besançon (France), it was agreed that the IMCG would benefit from and become more effective as an organisation if it developed a Corporate Strategy. Such a document would

- provide a basis for organisational continuity and legitimacy within IMCG and
- provide decision making and objective transparency within its membership and to the "outside world".

This strategy communicates the IMCG's *mission*, *vision*, *values*, and *aims*. It will provide the future framework for organisational delivery and development.

Our Mission
The IMCG mission is

to maintain the diversity of mires and peatlands all over the world by
conserving the full range of their natural functions and biodiversity; and by
ensuring their wise and sustainable use.

Our Vision
Our vision is that

the global conservation network, including IMCG, will be effective in guaranteeing the maintenance of the diversity and functions of mires and peatlands

Our Values
The IMCG is an open, transparent, and democratic organization that seeks to operate by the following principles:

Openness
IMCG membership is open to all individuals who endorse and – in the widest sense – contribute to the objectives of the IMCG.

> "Ordinary members are those individuals who wish to take an active part in the activities of the IMCG. They are expected to become, or already be, positively involved in one way or another with activities that coincide with the goals of the IMCG."
>
> (IMCG constitution article 4.2)

IMCG is open for discussion and cooperation with all mire and peatland stakeholders, including those with other principles, interests, and aims.

We disseminate all relevant and available information, experience, and know-how free and without restrictions.

Transparency
The IMCG organisation is transparent with clear responsibilities and rights. Membership of all executive organs is open to all members. Their meetings may be attended by and their decisions are available to all members.
The information we disseminate is accurate to the best of our possibilities.

Democracy
The IMCG wants to be a platform for all conceptions of mire and peatland conservation and wise use. Whereas decisions are taken by majority rule, minority views are given adequate considerations through open discussion.
The IMCG only works within the law.

Organizational structure
The IMCG is a network of voluntary members. The General Assembly of members is the highest decision making organ. It meets at least every two years at a biannual Congress.
The General Assembly charges the Main Board, elected from the members, with the governance of the IMCG in times between the Congresses.
The Main Board delegates tasks and powers to the Executive Committee, whose members are elected from and by the Main Board.
The Executive Committee is responsible for the day-to-day management of the organisation. It consists of a chairman, a general secretary, a treasurer, and two additional members.

The IMCG Action Plan

Our objectives
Our priority medium term objectives (4-6 years) are
- To identify the global diversity of mire features, functions, and values;
- To reduce the most urgent and significant threats to mires;
- To elaborate mechanisms that further our objectives and sustain our achievements.

Our Means
We try to reach our objectives by
- Facilitating worldwide exchange of information and expertise;
- Assisting coordination of efforts and resources;
- Promoting positive action;
- Increasing understanding and awareness.

Activities
(please refer to the table below)

INTERNATIONAL MIRE CONSERVATION GROUP

The IMCG Action Plan – Priority 1: To identify the global diversity of mire features, functions, and values

Targets	Actions	Output	Year of delivery
1.1. Assessment of the global distribution and condition of mires and peatlands	Preparation of an overview and gap analysis for all countries of the world on the basis of literature research and expert consultation	Report "The global status of mires and peatlands"	2002
1.2. Development of a globally valid system of mire types and an overview of their distribution	The preparation and publication of a typology and corresponding maps through continuation of the annual IMCG workshops	Report/book "The mire types of the World and their global distribution"	2004
1.3. Development of a globally unified consistent mire terminology	Development of a Universal Mire Lexicon (UML) in workshops and internet discussions	Draft Mire Lexicon	2002
		Chapter on UML in the European Mires Book	2002
1.4. Stimulation of regional mire and peatland inventories on the basis of an integral and coordinated approach	The installment and facilitation of regional working groups, workshops and publications	The working groups are installed, the coordinators appointed, and the working plans agreed	2002
	Assistance with project development and fundraising for the activities listed below	All activities listed below are included in the GPI proposal portfolio	2002
	The production of an overview of mire and peatland diversity and conservation status in Europe	Book "Mires and peatlands of Europe"	2002
	The production of an overview of mire and peatland diversity and conservation status in Southern Africa by continuation and expansion of the GPI-IMPESA project	Book "Mires and peatlands of Southern Africa"	2004
	The production of an overview of mire and peatland diversity and conservation status of Russia	Book "Mires and peatlands of Russia"	2005
	Starting the identification of the mire and peatland diversity and conservation status of South America by initiation and continuation of GPI projects in that region	Book "Mires and peatlands of South America"	2006
1.5. Identification of the main functions and values of mires and peatlands on a global scale	The collection of qualitative and quantitative information on the basis of literature research and expert consultation	Publication of a major chapter on functions and values in the IPS/IMCG Wise Use Background document	2002
	The ongoing synthesis of global databases on mire flora, vegetation, and mire plant ecology	Databases made available via the IMCG web site	2002
	To start a mire fauna data base	Databases made available via the IMCG web site	2006
1.6. Formulation of Ramsar Guidelines for peatland sites	Active participation in the work of the STRP Peatland Group in the preparation of such Guidelines	Revised Guidelines are endorsed by the Ramsar Standing Committee and COP8	2002

The IMCG Action Plan – Priority 2: To reduce the most significant threats to mires

Targets	Actions	Output	Year of delivery
2.1. Identification of the main threats and of mechanisms to avoid them	The inventory of regional threats and their effects	The publication on the internet of a dynamic database on regional threats	2003
		The inclusion of these analyses in the regional overviews (se above)	2002-2006
	The development of an infrastructure for membership expertise exchange	The database on IMCG expertise is developed and maintained	2002
		The mechanism for rapid expertise exchange by internet is provided	2002
2.2. Promotion of the conservation of mires in hot spots	The development and operation of a hot line for mire threats incl. a mechanism for feedback	The IMCG Web-site contains a "hot-line" for mires under threat	2003
	The acquisition of funds for the provision of free expertise for hot spots	The IMCG has a special fund to cover expertise provision for hot spots	2003

The IMCG Action Plan – Priority 3:
To elaborate mechanisms that further our aims and sustain our achievements

Targets	Actions	Output	Year of delivery
3.1. Permanent IMCG involvement in international mire conservation policy	Cooperation with partner organizations (IPS, WI, SWS, IUCN, …), both bilateral and in umbrella organizations (EHF,…)	Information exchange by web links, information bulletins, and attendance of meetings	2002
		Comprehensive mire conservation actions are undertaken in partnership	2002-2006
	Continued active participation in the Peatland Working Group of the Ramsar Scientific and Technical Research Panel	Active contribution to the GGAP, the Wise Use Guidelines and the Ramsar Site criteria.	2002
		Endorsement of the IMCG web-site by Ramsar as official reference site for inventory data	2004
	Pro-active participation in the Steering Group of the Global Peatland Initiative	The IMCG position is clearly reflected in all GPI policy.	2002-2006
		Submission of ample projects by IMCG and IMCG members	2002-2006
	Stimulation of mire/peatland related aspects in the Convention on Biodiversity	Recognition of mire types and patterns as paradigms of ecosystem diversity	2006
	Stimulation of mire/peatland related aspects in the UN Framework Convention on Climate Change and the Kyoto process	Report on the role of peatlands in climate change	2004
		Recognition of the importance of peatlands and mires as carbon stores and sinks	2006
3.2. A effective global network of mire conservationists by expanding IMCG presence to all regions and countries	The production and distribution of a regular Newsletter with global coverage	Informative IMCG Newsletter	4x per year
	The maintenance of a Website with global coverage	The IMCG web-site is up-to-date and easily accessible and contains adequate information to support mire conservation on global, regional and national level	2002
	The wide distribution of IMCG information material and membership registration forms, including to appropriate societies and journals.	An annual growth of the IMCG membership by 10%, representing 5 additional countries	2002-2006
	The expansion of IMCG membership in Southern Africa	IMCG members / contacts in most countries in Southern Africa	2003
	The preparation of the 2004 IMCG Congress in South Africa	The 2004 IMCG Congress in South Africa	2004
	The expansion of IMCG membership in South America	IMCG members / contacts in most South American countries	2004
	The preparation of the 2006 IMCG Congress in South America	The 2006 IMCG Congress in South-America	2006
	The support of national and local initiatives in mire conservation by providing expertise and assistance in fundraising and awareness campaigns	The IMCG members have easy access to any needed expertise to carry out mire conservation activities in their countries	2003
3.3. Provision of free exchange of information	The organization of meetings, symposia, and workshops.	Biannual symposium	2004, 2006, 2008
		Regular workshops devoted to regions or issues.	2002-2006
	The preparation of publications	Publications, incl. IMCG Newsletter	2002-2006

3.4. Implementation of economic incentives for mire conservation	The stimulation of the development and the use of peat alternatives	Information on the IMCG Web-site on peat alternatives	2003
	The promotion of adequate labeling, certification, and licensing of peatland related products and activities	Adequate "ecolabels" for peat (products)	2006
		Certification concepts for peat industries	2006
		The inclusion of Wise Use concepts in national licensing	2006
	The promotion of "debts for nature swaps" for mire conservation	"Debts for nature swaps" for mire conservation	2006
3.5. Awareness campaign	Identification of the motives for mire use. Identification of the stakeholders on the international level. Formulation and dissemination of a Wise Use approach.	Publication and wide dissemination of the Wise Use background document and declarations	2002
		Presentation of Wise Use Guidelines on Ramsar COP8	2002
		Presentation of Wise Use Guidelines on the IPS Congress	2004
3.6. Incorporation of resource users	The development and promotion of the IMCG benefactorship as a means of involvement	10 benefactors	2006

Candidates for the new Main Board

On our General Assembly (Congress) in France we have to elect a new Main Board. Members (including current MB members) who want to stand candidate for Main Board membership are requested to nominate themselves by sending a short letter or email to the secretariat. This should include

- a statement of willingness to stand for election for Main Board Membership
- an indication which specific task the candidate is prepared to fulfil (chairman, secretary, treasurer, "ordinary" Executive Committee member, "ordinary" Main Board member)
- some information about the candidate, his/her mire-associated background, and especially information about how he/she sees the future tasks and priorities of IMCG.

Twelve candidates present themselves below. Additional candidates can be presented in the next Newsletter (June 2002).

In order to guarantee an effective democratic election process involving *all* members, nominations must be submitted to the Secretariat before the first of June 2002, so that ballots and other General Assembly Documents can be sent out in/with the next Newsletter and will reach everybody in time.

Stuart James Brooks B.A. (Scotland)

I would like to put myself forward for nomination to the IMCG MB as an ordinary member (in the first instance).

Born 19/04/1969, Educated at University of Manchester and University of Newcastle upon Tyne 1988-92. My first practical experience of peatland conservation came as a volunteer for the Northumberland Wildlife Trust in 1990, getting my feet wet on the Border Mires - then hidden gems, now internationally renowned blanket mires. In 1992 I moved north to the Scottish Wildlife Trust where I worked with Rob Stoneman and Lucy Parkyn on an EU funded LIFE Nature project, this time concentrating on raised mires. My job in the team was to research and evaluate practical management techniques. The culmination of this work was the publication of the Bog Management Handbook. This work took me to Switzerland, the Netherlands, Germany, Ireland and the rest of the UK. During this time I also got a taste of tropical peatlands on a working trip to Jack Rieley's sites in Kalimantan.

From 1995 onwards I helped to put together and run the Peatland Biodiversity Programme, a Darwin Initiative project. This project covered 15 countries in Central and Eastern Europe, working towards developing networks and improving the sharing of information and knowledge. From this project I have developed a particular interest in peatland conservation in Poland.

All of this practical work and experience of hundreds of different mires has given me a solid understanding of the ecological and perhaps more importantly the anthropogenic influences that affect them. I have learnt not to jump to quick conclusions and think that one remedy for action can necessarily work in all places, economies and cultures. It has also opened my eyes to new experiences, beautiful mires and given me the privilege of meeting some wonderful people who I now call my friends.

As with many people who move up the corporate ladder, my responsibilities now are very different from those I took on 10 years ago. My function now as a Projects and Campaigns Manager is a strategic one. I develop project and business plans, design action plans and methods to monitor their implementation and progress. I manage people and large budgets and spend a lot of my time talking to people and asking them for money. However, as opposed to most people who make this move I have found that I enjoy it and are better at it than getting my feet wet. I am convinced my future is with a suit not a pair of rubber boots!

I know that there are many people within the IMCG that know more about mires than I ever will, but this is fine and as it should be. Although knowledge is power we need to harness it effectively and communicate our message internally and externally if we are to succeed as an organisation. We need to ask ourselves and our partners where we should be going and determine an agreed course of action. We need to set ourselves clear targets and stick to our core business priorities. In essence we need to build the business of international mire conservation. A business approach doesn't have to ignore people, which is after all what the IMCG is - a group of like minded people.

Changes are needed, but they should be made with full consultation and implemented sensitively. I believe that I can assist this process, I have the determination, the vision, the sensitivity and above all the desire to move IMCG forward and to see us realise our potential.

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Piet-Louis Grundling (South-Africa)

About myself...: I was born and raised in South Africa and am married to Althea, my beautiful South African wife and we are blessed with two adorable daughters (aged 6 and 4 this year). I have a MSc in Geology with specialization in mires and peatlands of Maputaland on the north eastern seabord of South Africa.

I have been involved in peatland research since 1988 and have worked on peatlands in Lesotho, Mozambique and South Africa. I have been an 'unofficial' member of the IMCG since 1998.

I am currently involved in the IMPESA project (Identification and Mapping of Peatlands in Southern Africa), in which next to the three above-mentioned countries also Botswana, Namibia and Swaziland are involved.

I am at present an Area-manager on contract for the Working for Wetlands Programme in the Gauteng and North West Regions. This programme seeks to conserve our wetlands by rehabilitating and restoring degraded wetlands (including about 50% peatlands) by employing workers from the previously disadvantaged communities in South Africa.

Participating in the IMCG in the last few years was worthwhile. I believe that the IMCG is not only changing the peatland scene in southern Africa (The South African IMCG Resolution and IMPESA) but that we will support the IMCG with a strong supports/membership base from southern Africa.

Yes, I am available for the main board, as well as for the executive committee (just remember that transport costs to Europe is a bit of problem, but I am sure we can make do a lot on e-mail, or even apply to some GPI funding under Objective 8...!)

Address: Piet-Louis Grundling, IMCG Africa, Ihlaphosi Enviro Services cc, P.O. Box 912924, Silverton 0127, South Africa; Tel/Fax: + 27-12-808 5342; e-mail: peatland@mweb.co.za

Ronald Hofstetter MB (USA)

Ronald Hofstetter, a plant ecologist and conservationist, is Associate Professor of Biology and Associate Director of Environmental Sciences at the University of Miami, Florida. He has 40 years of experience studying and teaching about wetlands in Canada and the United States. His main research involved the role of abiotic factors (nutrients, hydrology, microclimate, and fire) in determining the structure and distribution of communities on wetlands and of types of wetlands. He has assisted US and Florida agencies to develop criteria for identifying and classifying wetlands and monitoring and management plans for wetlands.

Since 1998, he has been working with the IMCG to develop an International Mire Lexicon, a new set of terms to distinguish among and name global types of mires and wetlands. He was elected to the first Main Board of the IMCG in 2000.

"I wish to state that I am willing to stand for re-election to the Main Board Membership of the IMCG. If I am elected, I will serve to the best of my abilities. Unfortunately, conditions of my current employment still prevent me from participating to the degree expected of members of the Executive Committee, so I can not allow my name to be listed for consideration for the IMCG-EC."

Address: on Hofstetter Department of Biology, Cox Science Center, Rm. 259, University of Miami, Coral Gables, FL 33124, USA; Tel.: (305) 284-6500; Fax: (305) 284-3039 rhofstet@umiami.ir.miami.edu

Rodolfo Javier Iturraspe (Tierra del Fuego, Argentina)

Age: 47, engineer in water resources, specialized in hydrology, climate, and environment; special interest: hydrology of mountain basins of Tierra del Fuego, mire hydrology.

Jobs/Activities: mainly at the Centro Austral de Investigaciones Científicas (CADIC) – CONICET Ushuaia, Argentina. Laboratory of Hydrology. Besides that also associate professor at the

Universidad Nacional de la Patagonia, Facultad de Ingeniería and active in the Departamento de Recursos Hídricos of the Subsecretaría de Recursos Naturales, Gobierno de la Provincia de Tierra del Fuego.
Some ideas about IMCG: IMCG has grown in the last years in organisation, number of members, activities and projects. I think IMCG must continue in this way to reach advances in mire conservation and to expand its activities (now more focused on Europe) to cover the entire world. We need to develop new links in all countries with universities, government institutions, and people who have possibilities and interest to give us support and to work on mire conservation. I am interested in continuing working on the IMCG Main Board, in representation of Tierra del Fuego, Argentina, land of natural Sphagnum mires. My distant residence and my job activities, however, don't allow me to participate in the IMCG Executive Committee.
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iturraspe@tdfuego.com
http://www.geocities.com/riturraspe

Hans Joosten (Germany, Netherlands)
Born: 15-3-1955; grown up with 40% of the Dutch bog remnants within 5 km of his parents'house. Happily living with wife and two daugthers (15 and 13 years) next to a (restored) Baltic Sea transgression mire. Studied geobotany, socio-economic history, aquatic ecology (Nijmegen University), and palaeoecology (Utrecht University). Earned his dr.-degree on landscape ecology and nature conservation of bogs. Worked as teacher, scientist, and policy maker at the Open University, the National Forest Service, the Ministry of Agriculture, and Utrecht University and as private consultant (all based in the Netherlands). Since 1996 senior scientist at Greifswald University (Germany), where he manages the working group on mire (palaeo)ecology within the study programme "Landscape Ecology and Nature Conservation". Interested in everything related to peat and peatlands.
I stand candidate for the Main Board and am prepared to continue my activities as Secretary-General in a similar way, to make mire conservation a global topic and to strengthen the IMCG.
Address: Botanical Institute, Grimmerstr. 88, D-17487 Greifswald, Germany; Tel.: +49 3834 86 4128; Fax: +49 3834 86 4114; joosten@uni-greifswald.de

Philippe JULVE (France)
Dr Plant Ecology, expert-consultant in environment and lecturer at universities of Lille (northern France). At present member of IMCG's EC, acting as treasurer. Active in IMCG organization and planning since 1990. Has organized the IMCG registration as an association under the French law in 2001. Main organizer of the next IMCG Symposium in France, July 2002. Active in Mire Conservation and mires studies in France, as a member of national mire committee. Responsible for two IMCG global projects.
I wish to stand candidate for the next IMCG main board, and executive committee.

Elena Lapshina (West-Siberia)
Born November 25, 1958 in Tomsk, Russia. Education: M.Sc. (Diploma) Tomsk State Univ. in Biology: "Spatial structure of pine forest biogeocoenosis", supervised by Dr. Yu. Lvov. In 1987, Ph.D. in Botany at the Tomsk State University: "Landscape structure and dynamics of the peatlands in the Ob river flood-plain (Southern part of Tomsk Region)".
From 1980 to 1988, scientific researcher at the Laboratory of Biogeocoenology (Department of Ecology), and from 1988 to 1990, senior teacher at the Department of Botany, both at Tomsk State University. From 1990-1991, I held a post-doctoral position at the Botanical Institute of the Kiel University in Germany, supervised by Prof. K. Dierssen (DAAD Scholarship Programme).
Since 1992, I have worked as Associated Professor at the Department of Botany of Tomsk State University and as Head of the Laboratory of Biogeocoenology at the Research Institute of Biology and Biophysics at Tomsk State University.
My main fields of interest are:
- Botany (Biodiversity, Wetland and Forest Vegetation)
- Peatland Ecology
- Siberian Peatlands
- Peat Stratigraphy
- Paleoecology and Climate Change
- Environment and Mire protection.

My main scientific interests have been in studying the forest and mire vegetation affected by climatic changes and environmental conditions in Western Siberia.
I have been a Member of the Russian Botanical Society since 1982, Member of International Phytosociological Society (Reinhold Tuexen-Gesellschaft) and of the International Association for Vegetation Science (IAVS) since 1991.
In the last decade I have devoted much time and effort to develop personal and scientific cooperation between Russian and "Western" scientists, students and nature lovers with respect to nature conservation and mire research. As a result more than 50 people from various countries have participated in scientific excursion and field research in West-Siberia, often several times, not to mention last year's Noyabrsk Symposium and Excursions.
Our new Darwin Initiative funded project "Cross-border conservation strategies for Altai Mountain endemics (Russia, Mongolia, Kazakhstan)" (2002-2005) will open new possibilities to start research in

the mountain mires of South-Siberia. A large part on Northern Asia consists of mountainous area and hardly any information is available on their biodiversity, ecology, and Holocene development. In the near future information has to be gathered on the mires of Central and Western Siberia, as well as of the Russian Far East as a prerequisite for their effective conservation. Support from IMCG, WI, GPI is very important.
IMCG plans to publish in some years a book on the mires of Northern Asia. For that purpose new additional knowledge has to be gathered. We will have to find and mobilise new active people to cover this giant area in a relatively short time.
With respect to IMCG activities: I think it is important to devote more attention to the popularisation and distribution of knowledge on mires and peatlands, especially to young people (students)
A new international (global) journal for scientific and applied research on Wetlands and Peatlands, together with IPS, WI and others could be very useful.
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Tatiana Minaeva (Russia)
I live in Moscow, Russia, my family was among the first generation immigrants from Poland. I'm almost forty and have two sons – Nikolaj (2nd year Cell Biology Moscow University) and Savva (3rd form Moscow University Primary Gymnasium).
In 1988, I graduated from the Dept. of Geobotany of the Moscow State University and I started my PhD in 1994 at the Komarov Botanical Institute in St-Petersburg.
I was fully employed as researcher in the Central Forest Biosphere Nature Reserve for 11 years and lived in a village 400 km North West from Moscow. My investigations concentrate on mire plant ecology, and natural dynamics of mire and forest vegetation.
Currently, I'm still half time employed in the Nature Reserve, to continue the long term observations done by myself and other staff, but I have moved to Moscow.
The other half of my time I now devote to nature conservation activity: in 1999-2001 I have been leading a WWF Russia project on the development of protected areas in the European part of Russia and have been assisting Wetlands International Russia Programme in developing a peatland program. Since 2002 I have concentrated only on the latter activity of the peatland conservation program.
I have been active in the Russian Mire Society led by Marina Botch since 1989. In 1991, I organised one of traditional biennial field seminars of the society in the Central Forest Nature Reserve. There I heard about the IMCG network, which was at those times restricted to one representative from our country. When IMCG started to spread as a wide network, I got the opportunity to join that pleasant community (1996). Since then I have been involved in many developments – symposia, discussions, etc. In 1997, I became part of the Working Group (the precursor of the Executive Committee) and took part in the discussions on the Constitution and organizational developments of IMCG. In Quebec the first official elections according new constitution took part and I was elected as EC Member.
As EC member I have taken part in the organisation of IMCG activities (day to day management, preparation of events and discussions, development of the IMCG Strategy, fundraising, informational networking etc.). Besides that I am currently representing IMCG in the GPI Steering Group.
Within the new Main Board, if elected, I would like to apply my facilities to implement IMCG Strategy (if adopted by Congress), develop and carry out some of IMCG projects, assist in fundraising for those projects, and provide the informational exchange. I also plan to expand the network in Russia and provide involvement of Russian experts in IMCG activities.
With all the best from Russia, Tatiana
Address: Tatiana Minaeva, Peatland projects coordinator, Wetlands International Russia Programme, Nikoloyamskaya Ulitsa, 19, strn.3, Moscow 109240 Russia, Tel.: +7 095 7270939,
Fax: +7 095 7270938; tminaeva@wwf.ru

Jan Sliva (Germany, Czech Republic)
Born: 07. 10. 1957; nationality: Czech; married (with the best woman in the world), two step-sons and two pretty grand-children (the next mire-research generation); shoe-size: 42;
eyes: blue-greenisch-greyisch; sex: male; profession: senior scientist (Wissenschaftlicher Assistent C1) Chair of Vegetation Ecology, Technical University Munich.
I studied landscape ecology and landscape planning in Czechia and have been active in mire ecology and restoration science at the TUM since 1990. I have been involved with IMCG since about 1995 and am currently IMCG executive committee member.
Every IMCG member will know that one of my current tasks is the administration of the membership and the address lists. As far as time allows me, I participate in further IMCG EC work, including the preparation of policy papers.
With respect to the Main Board: I am prepared to continue my activities as before, I do not pursue another position within the Main Board or the Executive Committee. As my present function will expire in Mai 2003 and I do not know what the future will bring, I can not yet guarantee my full involvement for the whole legislature period. If a future job prevents me from doing IMCG activities, a replacement must be found.
Address: Jan Sliva, Technische Universitaet Muenchen, Department of Ecology, Chair of

Vegetation Ecology; Am Hochanger 6, D-85350 Freising-Weihenstephan, Germany;
Tel.: ++49-8161-713715; Fax: ++49-8161-714143; sliva@weihenstephan.de
http://www.weihenstephan.de/vegoek/index.html

Barry G. Warner (Canada)
Barry Warner, Ph.D., PWS is a Professor at the University of Waterloo and Director of the Wetlands Research Centre, Canada. He has conducted research on the geology, biogeochemistry, paleoecology, ecology and management of peatlands in all parts of Canada, the USA, Mexico, Chile, Scandinavia, France, Switzerland, Russia, Japan and most recently, Indonesia. He has participated in the Biennial Field Symposia of the IMCG since 1982. He has served as North America's representative on the Decision-Making Committee of the IMCG and was the IMCG Committee Chair for the Quebec 2000 Wetland Millenium Event. As he finishes his term as President of the Society of Wetland Scientists, he is looking forward to assisting the IMCG in meeting its new directions and objectives as it expands its membership, continues to organize meetings in new parts of the world, and formulates its new constitution. Important issues that will continue to be of interest to the IMCG in the future include such topics carbon cycling and climate change, mire biogeochemistry and atmospheric pollutants, restoration, wildlife habitat and biodiversity, accurate inventories and mapping, mire classification, conservation and mire protection protocols, and new International Agreements and policies. I believe there are many more mires in many countries around the world that we do not yet know about or know very little about. We must work to identify these, development management plans and conservation policies for these before it is too late.
Address: University of Waterloo, Wetlands Research Centre, Environmental Study Building, Waterloo, Ontario N2L 3G1 Canada; Tel.: 001 519 888 45 67; Fax: 001 519 746 06 58;
bwarner@watserv1.uwaterloo.ca

Leslaw Wolejko (Poland)
Born 2nd August 1956 in Szczecin, Poland. Education: master degree Agricultural Univ. of Szczecin, 1980, PhD in Agriculture, Agric. Univ of Szczecin, 1990: "Comparison of spring ecosystems developing in natural conditions and under human impact". Habilitation in biology in progress (at Gdansk Univ.:) "Ecological dynamics of ground-water supplied ecosystems in NW Poland".
Scientific visits: Agricultural Univ. Wageningen - RIN Leersum, 1983 (three months); Graduate School of Environmental Science, Hokkaido Univ., Sapporo, Japan (2 years).
Member of: Polish Botanical Society, IAVS, IMCG, GfQ (Society for Spring Ecology and Protection).
Interests: mire vegetation, ecology, protection, landscape management, nature protection.
In respect to IMCG, I have no change of ideas in relation to these already expressed. I have been in favour of a strong Chairmen position, but any structure that brings accountable positive results (progress in the protection of mires) is acceptable for me.
Some corrections below - see the address.
Address: Leslaw Wolejko, Botany Dept., Akad. Rolnicza, ul. Slowackiego 17, 71-434 Szczecin, Poland;
Tel.: +48 / 91 4250252; botanika@agro.ar.szczecin.pl

Meng Xianmin (China)
Presently working at the Laboratory for wetland process and environments, Changchun Institute of Geography of the Chinese Academy of Sciences, I have been active in the field of peatland development and management in China for 15 years. After working at the Macaulay Land Use Institute, UK as a visiting scholar in 1993-1994, Wetlands International-China Programme employed me as a senior technical officer for two years. After that I came to the Changchun Institute of Geography to continue my research on peatland conservation and management.
Under heavy pressure from population and fast economic growth, the peatland conservationist's voice is still very weak in China. Although conservation can benefit from economical development, we do not wish to first damage and then repair our environment. My interest also concerns the relation between peat accumulation and stores and the global carbon cycle. China is a peat-rich country that plays a significant role in the global carbon store and has diversified peatland types.
I want to make a call for cooperation in research on China's peatlands and their conservation.
I am interested in to be candidate of new IMCG main board and I will work hard with IMCG for peatland conservation in China.
Address: Meng Xianmin, Changchun Institute of Geography, The Chinese Academy of Sciences, No. 16, Gongnong Street, Changchun, 130021, The People's Republic of China Tel: ++86-431-5652450; Fax: ++86-431-5652931 | mengxm@public.cc.jl.cn

Call for Resolutions

It has become a tradition at the biennial IMCG General Assembly (Congress) to adopt a series of resolutions that address current topics in mire conservation worldwide. These resolutions are addressed to relevant authorities, e.g. governments and international organisations. Many resolutions have had an important effect on mire conservation in various countries.

On previous congresses, the resolutions have been drawn up by IMCG members present at the Congress in a rather hectic process. In order to improve the making of resolutions to be adopted at the IMCG General Assembly (Congress) in France 2002, we should - as far as possible - prepare them in advance to give ample opportunity for discussion and editing. If you want to submit a resolution for your country or region on the congress, you are, therefore, invited to prepare an article for the next Newsletter to explain, illustrate, and discuss your proposed resolution. You may also choose to prepare a complete draft resolution. For format consult resolutions on the web: (http://www.imcg.net/docum/norway/trondheim.htm) Contact your IMCG secretariat for support.

Wise Use Statement

It is almost a year ago, that IMCG and IPS members, together in Wageningen to discuss the joint Wise Use background paper (www.mirewiseuse.com), decided to make a "Wise Use Statement" (the "Wageningen statement"). It has taken lengthy email-discussions since to arrive at such joint statement. As you might have noticed, a draft was posted on a "secret" link already some months ago.

Both the IPS Executive Board at its meeting in Finland last December and the IMCG Main Board have now fully consented to the following text.

We will post the full statement (now openly) on our web sites (www.imcg.net/docum/wise0111.htm).

Furthermore we will produce a professionally prepared PR product that will enshrine appropriate parts of the text but not necessarily all of it. An application to design, publish and distribute the statement has been made to the Global Peatland Initiative.

Statement on the wise use of peatlands

Prepared by the International Peat Society and International Mire Conservation Group

Introduction

This document highlights the nature and importance of peatlands and identifies problems resulting from their use. The International Peat Society (IPS) and International Mire Conservation Group (IMCG) provide suggestions on how these problems may be resolved through application of the “wise use” approach. The challenge is to develop mechanisms that can balance the conflicting demands on the global peatland heritage to ensure its continued wise use to meet the needs of humankind. It is understood in this Statement that the term “peatlands” is inclusive of “mires”. 1

What are peatlands?

Peatlands are the most widespread of all wetland types in the World, representing 50 to 70% of global wetlands. They cover over four million km2 or 3% of the land and freshwater surface of the planet. In these ecosystems are found one third of the world's soil carbon and 10% of global freshwater resources. These ecosystems are characterized by the unique ability to accumulate and store dead plant matter commonly, from moss, sedge, reed and tree species, as peat, under conditions of almost permanent water saturation. Peatlands are adapted to the extreme conditions of high water and low oxygen content, of toxic elements and low availability of plant nutrients. Their water chemistry varies from alkaline to acidic. Peatlands occur on all continents, from the Tropical to Boreal and Arctic Zones from sea level to high alpine conditions.

Why pay attention to peatlands?

Wise use of peatlands is essential in order to ensure that sufficient area of peatlands remain on this planet to carry out their vital natural resource functions while satisfying the essential requirements of present and future human generations. This involves

1 A “peatland” is an area with a naturally accumulated peat layer at the surface. A “mire” is a peatland where peat is being formed and accumulating. All mires are peatlands. Sites no longer accumulating peat would not be considered mires anymore.

evaluation of their functions, uses, impacts and constraints. Through such assessment and reasoning, we must highlight the priorities for their management and use, including mitigation of damage done to them to date.

They are important ecosystems for a wide range of wildlife habitats supporting important biological diversity and species at risk, freshwater quality and hydrological integrity, carbon storage and sequestration, and geochemical and palaeo- archives. In addition, they are inextricably linked to social, economic and cultural values important to human communities worldwide. Their total carbon pool exceeds that of the world's forests and equals that of the atmosphere.

Peatlands are natural systems performing local, regional and often global functions but they mean different things to different people. They can be considered as land, wetland, geological deposit, water body, natural habitat or forest stand. In many cases, they may be all of these at one time. They are analogous to living organisms because they grow, mature and may even die. Peatlands are used by many stakeholders for agriculture, forestry, fuel production, industry, pollution control, recreation, tourism, nature conservation and scientific research, while also supplying for the needs and life support of local communities and many indigenous peoples. Any human influence on peatlands, or their surrounding landscape, can affect their form and function. This necessitates an integrated environmental impact assessment approach prior to approval of any development affecting peatlands.

The global area of peatlands has been reduced significantly (estimated to be at least 10 to 20%) since 1800 through climate change and human activities, particularly by drainage for agriculture and forestry. The latter continue to be the most important factors affecting change in peatlands, both globally and locally particularly in the Tropics. Human pressures on peatlands are both direct through drainage, land conversion, excavation, inundation and visitor pressure, and indirect, as a result of air pollution, water contamination, contraction through water removal, and infrastructure development. The range and importance of the diverse functions, services and resources provided by peatlands are changing dramatically with the increases in human demand for use of these ecosystems and their natural resources.

Peatlands - a vital local, regional and global resource

Peatlands satisfies many essential human needs for food, freshwater, shelter, warmth and employment. With the growing understanding of their ecological importance to the Planet, conflicting uses of peatlands become apparent. There are many examples of such conflicting demands and needs, several of which are outlined below.

- In Europe, agriculture has been the principal sector use of peatlands for several centuries, occupying 125 000 km2. Well-managed peatland soils are among the most productive agricultural lands available, facilitating the efficient production of essential food crops. Drainage and conversion of peatland to agriculture has been going on for many centuries and continues to this day.
- In the Tropics, peatland utilization mainly commenced after 1900; peatland conversion speeded up after the Second World War. The main impacts on peatlands in the Tropics are through agriculture and human settlement by forest removal, fires and land drainage.
- Extensive commercial forestry operations have been established on peatlands in many nations. It is estimated that nearly 150 000 km2 of the World's peatlands have been drained for commercial forestry.
- In several countries, peat is extracted and burned for its energy value, providing an important local and national source of heat and power. In total, some 21 million tonnes of peat generate about five to six million tonnes of oil equivalent per year.
- Peat offers an ideal substrate for horticultural and silvicultural plant production. Peat forms the basis of growth media that are readily available, easily processed, uniform, high performance and cost-effective, a business that is worth around $US 300 million annually. In 1999, nearly 40 million m3 of peat were used across the World in horticulture.
- The global area of peatland used for energy generation and production of plant growing media is around 2000 km2.
- There are many other uses of peatlands and peat, including building and insulation systems, animal stable litter, alcoholic drinks, environmental improvement and purification systems, balneology, therapy, medicine and textiles.
- All these uses of peatlands underpin downstream businesses that support the livelihoods of many thousands of people and generating billions of dollars annually.

Peatland wise use conflicts

Peatlands have been depleted or degraded in many countries around the World owing to short-term or single sector development strategies, leading to conflicts between different user groups. For example:

- the drainage of peatlands may affect their flood control functions leading to damage of downstream valley farmlands, bridges and buildings;
- drainage of peatlands for agriculture may lead to loss of carbon storage and climate change mitigation functions;
- drainage of peatlands and planting them with forests impacts on biodiversity and constrains their use for recreation, berry picking and hunting;
- strict nature conservation may impact upon the local socio-economic situation, especially in developing countries.

These conflicts often relate to trade-offs between different stakeholder groups and result in "win-lose" situations with the more influential or powerful

stakeholders "winning" and the less powerful "losing". An example is peat extraction for energy or horticulture that does not take into account peatland conservation issues or after-use. There can also be "lose-lose" situations in which all stakeholders lose, for example, the Indonesian Mega Rice Project that commenced in 1996. This project was abandoned in 1998 after drainage of almost one million ha of peatlands, destruction of approximately 0.5 million ha of tropical peat swamp forest and the investment of $US 500 million. The project was cancelled without producing any economically viable agricultural crops.

"Win-lose" situations can sometimes be turned into "win-win" situations by appropriate rehabilitation and after-use in which, for example, formerly drained and cutover peatlands are re-wetted, conditions for peat formation restored, essential functions revitalized, and biodiversity increased.

A key issue in the management of peatlands is the lack of human and financial resources. This includes appropriate understanding of these complex ecosystems, implementation techniques, and the human capacity to manage peatlands appropriately. There are those who wish to use peatlands for their production functions, and others who wish to preserve and manage these ecosystems for their regulating and non-material life-support functions. Conflicts arise between these competing views of protection and production.

1. Clearly, criteria are needed to assist in land use decision-making regarding peatlands. The following criteria could assist in governing the wise use of peatlands:
2. If the use of a peatland resource ensures the availability of the same quantity and quality of that resource, there is – except for side effects – no reason to refrain from using the resource.
3. Even when the supply is decreasing, a particular peatland use can be continued as long as that resource is abundant.
4. If that peatland resource is not abundant and getting rare, it is wise not to use the resource to the point of exhaustion, in the event that the resource might be needed for more urgent purposes in the future.
5. The use of a peatland for a specific purpose may have considerable side effects. All other functions must be taken into account in the full assessment of the suitability of an intervention.
6. With respect to side-effects, an intervention could be considered permissible when:
   - no negative side effects occur, or
   - the affected resources and services remain sufficiently abundant, or
   - the affected resources and services can be readily substituted, or
   - the impact is easily reversible.
7. In all other cases, an integrated cost-benefit analysis should be carried out involving thorough consideration of all aspects of the intervention.

Implementing wise use

The International Peat Society and International Mire Conservation Group believe that wise management of peatland ecosystems requires a change in approach. This must involve change from that of single sector priorities to an integrated, holistic planning strategy, involving all stakeholders, such that consideration is given to potential impacts on the ecosystem as a whole. The design of peatland resource management projects involving a wide group of stakeholders is a major challenge, in which stakeholders should be prepared to ensure benefits for future generations. Wise use of peatlands will be enhanced by initiatives such as:

1. Adoption and promotion of the Ramsar Convention's Guidelines for Global Action on Peatlands (GGAP) and implementation of its wise use themes.
2. Publication and distribution of the joint IPS/IMCG Report The Wise Use of Mires and Peatlands - Background and Principles.
3. Implementation of the Global Peat Initiative (GPI) being facilitated by Wetlands International and its partner organizations.
4. Publication of a handbook of Wise Use Guidelines by the Ramsar Convention and its partner agencies as a means of delivering key aspects of the GGAP.
5. Refinement of global criteria for identifying and protecting key peatland sites for conservation purposes.
6. Refinement and standardization of peatland classification systems and terminology.

March 2002

Wise Use Document

In contrast to what we have been writing in the last Newsletter, the new draft of the Wise Use background paper is not yet available. The main reason for that is the enormous time it takes to compile the information on global peatland distribution and its status. We, however, expect that the new draft will be posted on the web in the coming months, including a fully referenced overview of the current status and distribution of mires and peatlands. Keep an eye on http://www.mirewise.com

The current extent of peatland in the World

by Hans Joosten

During the development of the background report on the Wise Use of Mires and Peatlands (www.mirewiseuse.com) by the International Mire Conservation Group (IMCG) and the International Peat Society (IPS), one issue has - time and again - been a matter of dispute: the extent and condition of peatlands in every country.

Peatland related terms and concepts are so divers and confusing, and distributional data so divergent, that it was impossible to use some single references (e.g. Lappalainen 1996 as the most recent global overview) as a basis for the mire and peatland distribution data.

Therefore it was decided to try and present an up-to-date international overview, with - per country - the background information and references. This project, in which thousands of references have been checked, is still in progress. The first full draft document will be made available in the coming months. The document will also address the question: what is the current status of mires and peatlands in the world? How much area has been there in the past, how much has disappeared, and how many active peat accumulating systems are still existing and where are they situated?

The following table presents the first rough results of the exercise with respect to *peatlands*, as prepared for the "Global Peatland Initiative Side Event" on the 6th Conference of the Parties (CoP 6) of the Convention on Biological Diversity (CBD) on 17 April 2002 in The Hague. In this overview, a *peatland* is considered to be "an area with or without vegetation with a naturally accumulated peat layer at the surface". To provide a uniform standard, all data concern peatlands with a *minimum peat depth of 30 cm* to which the available data were recalculated.

Next to screening the literature, the question where and how many peatlands there are has also been addressed by systematically analysing the FAO/UNESCO 1971-1981 Soil Map of the World 1:5,000,000. A new World Peatland Map, prepared by Vincent van Engelen and Jan Huting of the ISRIC Wageningen, will also be presented at the CBD Global Peatland Initiative Side Event. The areal data from the Soil Map will in the coming weeks be compared with our table, to arrive at even better global data.

Comments on these first guestimates are very welcome at: joosten@uni-greifswald.de

Estimated current (2002) peatland area (> 30 cm peat, > 30% organic material) per country/region in km^2. Total area (1998) according to Encarta.

0: no peatland occurrences encountered, peatlands probably absent

???: no peatland occurrences encountered, peatland probably present

1: peatland occurrence recorded, but actual area may be (substantially) smaller than 1 km^2

Country/region	Total area	Peatland area
Afghanistan	652,225	120
Albania	28,748	179
Algeria	2,381,741	10
American Samoa (USA)	195	0
Andorra	468	5
Angola	1,246,700	100
Antarctica	14,200,000	3,000
Antigua and Barbuda	442	???
Argentina	2,780,400	2,400
Armenia	29,800	55
Auckland Islands (New Zealand)	570	560
Australia (excl. Tasmania)	7,614,500	1,330
Austria	83,858	200
Azerbaijan	86,600	10
Bahamas	13,939	10
Bahrain	707	0
Bangladesh	147,570	300
Barbados	430	0
Belarus	207,595	23,500
Belgium	30,528	160
Belize	22,965	680
Benin	112,622	100
Bermudas	53	1
Bhutan	47,000	1
Bolivia	1,098,581	20
Bosnia and Herzegovina	51,129	150
Botswana	581,730	3,000
Brazil	8,547,404	55,000
Brunei	5,765	1,000
Bulgaria	110,994	25
Burkina Faso	274,200	10
Burundi	27,834	150
Cambodia	181,035	7,000
Cameroon	475,442	100
Canada	9,970,610	1,235,000
Canary Islands	7,273	0
Cape Verde	4,033	0
Central African Republic	622,436	100
Chad	1,284,000	10
Chatham Islands (New Zealand)	963	450
Chile	756,626	10,470
China	9,571,300	7,000
Colombia	1,141,748	10,000
Comoros	1,862	???
Congo	342,000	4,000
Costa Rica	51,060	370
Croatia	56,510	1
Cuba	114,525	6,000
Cyprus	9,251	1
Czech Republic	78,864	200
Democratic Republic of the Congo	2,344,885	14,000
Denmark	43,094	1,400
Djibouti	23,200	0
Dominica	750	1
Dominican Republic	48,400	10

Easter Island (Chile)	117	1
East-Timor	14,609	???
Ecuador	272,045	5,000
Egypt	997,739	10
El Salvador	21,041	90
Equatorial Guinea	28,051	???
Eritrea	121,144	???
Estonia	45,227	10,000
Ethiopia	1,133,380	200
Faroe Islands	1,400	30
Falkland Islands / Islas Malvinas	12,173	11,510
Fiji	18,376	40
Finland	338,145	85,000
France	543,965	1,500
French Guiana	91,000	1,620
FYRO Macedonia	25,713	30
Gabon	267,667	80
Galápagos Islands (Ecuador)	7,844	1
Georgia	69,700	200
Germany	356,970	13,000
Ghana	238,500	100
Gibraltar	6	0
Greece	131,957	71
Greenland	2,175,600	5
Grenada	344	???
Guadeloupe (France)	1,780	2
Guam (USA)	541	0
Guatemala	108,889	1
Guinea	245,857	1,000
Guinea-Bissau	36,125	???
Guyana	214,969	8,000
Haiti	27,750	1
Hawaii (USA)	16,179	1
Honduras	112,492	4,530
Hungary	93,030	330
Iceland	103,000	8,000
India	3,165,596	300
Indonesia	1,904,443	270,000
Iran	1,648,000	10
Iraq	438,317	100
Ireland	70,273	11,500
Israel	21,946	40
Italy	301,323	300
Ivory Coast	322,462	300
Jamaica	10,991	100
Jammu and Kashmir	222,236	100
Jan Mayen (Norway)	373	0
Japan	377,837	2,000
Jordan	89,556	1
Juan Fernández Islands (Chile)	180	1
Kazakhstan	2,717,300	50
Kenya	582,646	1,600
Kiribati	811	2
Kuwait	17,818	0
Kyrgyzstan	198,500	100
Laos	236,800	200
Latvia	63,700	6,600
Lebanon	10,452	1
Lesotho	30,355	20
Liberia	99,067	400
Libya	1,757,000	0
Liechtenstein	160	1
Lithuania	65,300	3,520
Luxembourg	2,586	3
Madagascar	587,041	1,500
Madeira (Portugal)	794	???
Malawi	118,484	900
Malaysia	329,758	25,000
Maldives	298	1
Mali	1,240,192	400
Malta	316	0
Marshall Islands	181	0
Martinique	1,102	1
Mauritania	1,031,000	60
Mauritius	2,040	1
Mexico	1,964,382	1,000
Micronesia (Federated States of)	702	0
Moldova	33,700	10
Monaco	2	0
Mongolia	1,566,500	50
Morocco	453,730	10
Mozambique	799,380	1,000
Myanmar	676,552	500
Namibia	824,269	10
Nauru	21	0
Nepal	147,181	1
Netherlands	41,526	2,350
New Caledonia & Depend. (France)	19,058	1
New Zealand	270,534	2,600
Nicaragua	129,494	3,710
Niger	1,267,000	30
Nigeria	923,768	120
North Korea	120,538	1,300
Norway	385,639	2,800
Oman	309,500	0
Pakistan	796,095	100
Palau	488	1
Panama	75,517	7,870
Papua New Guinea	462,840	28,942
Paraguay	406,752	100
Peru	1,280,000	50,000
Philippines	300,000	100
Poland	312,684	12,500
Portugal	92,345	20
Puerto Rico	9,104	100
Qatar	11,427	0
Reunion	2,512	1
Romania	237,500	1,000
Russia European part	17,075,200	213,000
Russia Asian part		1,177,000
Rwanda	26,338	800
Samoa	2,831	1
San Marino	61	0
São Tomé and Príncipe	1,001	???
Saudi Arabia	2,240,000	0
Senegal	196,722	20
Seychelles	454	0
Sierra Leone	71,740	1
Singapore	648	1
Slovakia	49,035	26

Slovenia	20,253	100
Solomon Islands	27,556	10
Somalia	637,700	0
South Africa	1,219,090	300
South Korea	99,268	5
Spain	505,990	60
Sri Lanka	65,610	35
St Helena (UK)	324	80
St Kitts and Nevis	269	1
St Lucia	616	???
St Vincent and the Grenadines	389	???
Sudan	2,505,800	1,400
Suriname	163,265	1,130
Svalbard /Spitsbergen	62,160	10
Swaziland	17,363	???
Sweden	449,964	66,000
Switzerland	41,285	300
Syria	185,180	3
Taiwan	36,000	???
Tajikistan	143,100	???
Tanzania	945,100	100
Tasmania	68,331	20
Thailand	513,115	500
The Gambia	11,295	100
Togo	56,785	10
Tonga	750	???
Trinidad and Tobago	5,128	10
Tunisia	164,418	1
Turkey	779,452	120
Turkmenistan	488,100	0
Tuvalu	26	0
Uganda	241,138	14,000
Ukraine	603,700	8,000
United Arab Emirates	83,600	0
United Kingdom	244,110	17,500
United States of America	9,629,047	625,000
Uruguay	176,215	1,000
Uzbekistan	447,400	???
Vanuatu	12,190	???
Vatican City	0,44	0
Venezuela	912,050	10,000
Vietnam	331,690	1,000
Yemen	527,970	???
Yugoslavia (Serbia and Montenegro)	102,173	300
Zambia	752,614	10,000
Zimbabwe	390,759	1,400

Conservation and Wise Use of Peatlands at the Convention on Biological Diversity

The Global Peatland Initiative will organise a side event on Conservation and Wise Use of Peatlands during the 6th Conference of the Parties (CoP 6) of the Convention on Biological Diversity (CBD) in The Hague.

The Global Peatland Initiative is an initiative of: Wetlands International, the International Mire Conservation Group, the International Peat Society, Alterra, and the IUCN/Netherlands Committee

The side event will take place at the Congress Conference Hall, The Hague, The Netherlands in the Carel Willink room on Wednesday 17 April 2002, from 13.00 – 14.45

The general objective is to promote the Global Peatland Initiative (GPI) as a clearinghouse for conservation and wise use of peatlands worldwide and to involve donors and interested stakeholders (including GOs and NGOs) represented at the CoP.

A specific goal of the event should be to lobby for additional donors, and to promote the GPI as a unique business-civil society network for conservation and wise use of global peatlands, and further to get support for GPI objectives, and attract possible donors for the GPI second phase. The event should raise awareness about peatlands as an object of biodiversity conservation.

Agenda

Note: There is probably room for some 75-100 people. Lunch, coffee/tea will be provided.

1.00- 1.10 Welcome

- Willem Ferwerda, chair (director IUCN/Netherlands Committee)

1.10 – 1.40 Peatlands world wide under threat

- Introduction: The biodiversity and current status of global peatlands – Dr. Hans Joosten (Secretary General of IMCG) - 10 min.
- The wise use of peatlands? – Donal Clarke (IPS) - 10 min.
- Peatlands and the Ecosystem Approach – Dr. Herbert Diemont (Alterra) 10 min.

1.40 - 2.10 Peatlands in the Region

- Peatlands of Russia – Tatiana Minaeva (Wetlands International Russia Programme) – 10 min.
- Peatlands and páramos in Latin America – Dr. Robert Hofstede (Ecociencia, Ecuador/ University of Amsterdam, the Netherlands) – 10 min.
- Peatlands in Africa – Dr. Jan Sliva (Technical University München, Germany) – 10 min.

2.10 - 2.35 Time for Action

- The Guidelines for Global Action on Peatlands (GAP) – Nick Davidson (Deputy Secretary General of the Ramsar Convention) – 10 min.
- The Global Peatland Initiative (Marcel Silvius, Wetlands International) – 15 min.

2.35-2.45 Some time for questions and wrap up

Successful start of IMPESA

By Jan Sliva

The IMPESA project (Identification and Mapping of Peatlands in Southern Africa) was initiated in the Southern African autumn of 2001 as the first and up to now, sole GPI project on the African continent. The IMPESA project is based on numerous Global Peat Initiative (GPI) objectives, among others:

- Support and enhance the participation of developing/transition countries in the global peatland initiative on the future use of all peatlands in the world.
- Identify key peatland areas and sectoral needs in South America, Africa and China.
- Raise awareness of the function and benefits of peatlands, and assess the full public and direct values of peatlands.

The main goals of IMPESA initiative are:

- The global peatland inventory followed by identification of key peatland areas (e.g. peatlands of international importance) in southern Africa
- Development and promotion of a network of local, national and international initiatives

To achieve these goals, the IMPESA project shall runn in two phases:

1. Framework development, Resource Evaluation and Training
2. Completion of Peatland Inventory

The first phase, which ends in July 2002, contains (i) the development of the Southern African Peatland Group – SAfPG, (ii) an overview of the current status of the peatland inventory and of the knowledge base of peatlands, (iii) training of the SafPG on peatland inventory and evaluation issues. It is planned that this phase will be followed in 2002/2003 with a complete inventory. In the present phase the project covers the following countries – Botswana, Lesotho, Mozambique, Namibia, South Africa, Swaziland, and Zimbabwe. The collaboration of other African countries, especially within the SADC region (Southern African Development Community) is strongly intended.

The project is currently headed by peatland and wetland experts from the University of Pretoria (SA), the Technical University of Munich (Germany) and the University of Botswana. The environmental governmental authorities, NGO's, research and educational institutes as well as all wetland/peatland interested groups and individuals are encouraged to co-operate with, or be part of, the IMPESA team to contribute to the optimal implementation of the IMPESA targets and, thus, to contribute to the efficient conservation and wise use of peatlands in Africa.

Progress

The project is making good progress. Over 120 references to peatlands in Southern Africa were recorded up to now. This GPI -initiative was well received by the Southern Africa wetland community and a workshop hosted in March 2002 in the Greater St. Lucia Wetland Park a World Heritage Site, launched Southern Africa into the Mire Millenium!

Twenty representatives of all current IMPESA countries participated in the workshop. Beside the national reports concerning the actual status of inventory of peatland related sources, the standardized methods for the evaluation of this information was presented and enhanced, field based inventory methods for the 2nd phase of the project discussed as well as the first draft of the IMPESA proposal for the 2nd phase elaborated. Without doubt one can say that in St. Lucia the first active and international peatland group was successfully established.

During the Workshop the participants recognized relatively good knowledge on peatlands distribution in some regions in South Africa and in Mozambique (whereas in some others the knowledge remains rather poor) but almost no information on peatlands), but almost no professional knowledge about peatlands and mires in other IMPESA countries despite the peatland occurrence there. On of the possible reasons may be that in Africa there is no place of "peatlands" in common classification and terminology of wetlands yet. Thus, peatlands and mires are mostly described as "swamps", "backswamps", "mud(dy) soils", "swamp forests", "reeds", "bogs" (although not ombrotrophic), or general as "wetlands". In lot of sites with those description peat may occur in considerable quantities. For example: In the global peatland inventories, Botswana is stated as country without peat, although there are more than 2,000 km2 peatlands with enormous volume of the *Cyperus papyrus* peat in the Okavango region. The reason for this "ignorance" is the repeated description of that peatlands as "permanent swamps".

On the end of the Workshop all participants expressed their hope for the continuation of the IMPESA initiative also after June 2002, to be able to finalize the inventory work but also to be able to

create larger and stronger, self-contained peatland working group which should carry the IMCG and IMPESA ideas in Southern Africa also after the GPI period.
Another breakthrough was the presentation of the IMPESA project by to the Southern Africa Development Community (SADC) wetland commission, in March in the Kingdom of Swaziland. Some of the officials were familiar with peatlands, but most of all they were very supportive towards IMPESA, especially the fact that project seeks to build capacity within each country!
For more information on IMPESA project, please, contact:

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GPI input in mire conservation in Russia

by Tatiana Minaeva

In the last years the mire conservation concept in Russia has changed, as has everything in the country. In former times, mire conservation in Russia was led and promoted by scientists, studying the diversity and properties of mires. The scientists who studied mire functions (i.e. in the meaning of the Wise Use report: as beneficial for human beings) and mire resource "users" were in opposition to "green" scientists. The scheme of decision making in conservation during socialist times was simple: the person having the scientific authority contacted the authority of the region/country directly and the decision was taken or not, the protected area was established or not, peat extraction was stopped or not, depending on whose authority was stronger. This type of interactions was not sustainable but economical.
Nowadays the number of actors in the chain has dramatically increased. The interactions between different partners have no stable rules; the legal and political climate in the country is changing all the time. Decisions or agreements can become obsolete three months after they are taken. Besides that, the traditional Russian approach of conservation by isolation within protected areas is not effective anymore and is expanded with a 'wise use' approach. All these factors turn mire conservation into a complicated and resource consuming activity.
The GPI is a good opportunity to achieve progress on this thorny path. First of all, being an initiative of both nature conservationists and nature resource users on the international level, the GPI promotes such a co-operation on the national level. Secondly: GPI assists in fundraising, which is also new for mire conservation activity in Russia.
Nature conservation in the civil world includes four components: informational background (science), legal mechanisms, economical mechanisms, and social integration. The last two features are totally new for Russia, the legal aspects were very specific. In our attempts to develop the infrastructure and sustain mire conservation activity in modern Russia we tried to initiate activities within all those directions.
The informational background is in a good status of development. During the last year a small team has made an inventory of the information available in Russian (Soviet) special archives and other sources. The result was presented in the book "Peatlands of Russia: to the analyses of sectorial information", eds. A.Sirin & T.Minaeva, 190 pp. (in Russian). From that book one can learn where and what sort of information on peatlands of Russia is stored. An English summary of the book with the main results is currently under preparation and will be available from the Wetlands International Russia Programme office in June this year.
The legal mechanisms of mire conservation are under development on all levels. On the international level we are doing our best to assist Russian official bodies to take an active part in the Ramsar Convention process. It includes such simple things as translating documents into Russian, assistance in obtaining the appropriate expertise on documents, organising discussions on resolutions under preparation etc. On the national level, the Federal Law on Wetlands Conservation is under development. The GPI funding gave us opportunity to organise an official Working Group for Wetlands Law in the Parliament Low Chamber (Duma) and to provide the adequate expertise for its activity.
The other national level document is the National Action Plan for Peatlands Conservation and Wise Use, that gives a legal base to the Peatland Wise Use approach. The Working Group for development of this document was recruited during the National Peatland Workshop in January 2001 and represents officially the main stakeholders on the National level or their successors (that 's the reality of the

constantly changing Russian political landscape). A one day workshop in February this year has demonstrated a good constructive atmosphere. So we expect that later this year the National Action Plan will be endorsed by the four main ministries involved (Natural Resources, Agriculture, Energy, Federal Service for Hydrometeorology) and other stakeholders.

The National Peatland Action Plan includes a large set of economical mechanisms for nature conservation. The compatibility of the action plan with the economic situation was assessed. It is necessary to prepare a prognosis on the main developments concerning peatlands resource use. We are looking for funds to carry out such a study. Only after that information is obtained one can develop the measures to achieve both developmental and conservational needs.

Detailed wise use schemes can anyway only be developed on the regional and local levels. For that purpose we have organised a fundraising campaign to provide facilities for regional projects on peatland wise use. We have started with the development of a project portfolio. The project ideas for regional and local activities aimed at peatland conservation and wise use from the whole of Russia will be published both in Russian and English to attract attention of potential donors.

The integration of conservation activity in the social environment in Russia is a hard task that has to be fulfilled with the assistance of professional sociologists. The times of the 1990s, when politicians used ecological ideas to reach power, are over. The population does not accept the environmental ideology any more and the actors in the market are doing their best to obtain income from natural resources using all means. A special study is planned to find out main stakeholders on all levels, to describe their intentions concerning peatlands, to reveal the main conflicts between them and the needs of peatland conservation, and to plan the ways to overcome described problems. At present we use GPI funds to develop the methodology for that investigation and to carry out small regional case studies to test the methods. The next phase – the study itself – will be carried out if funds are available.

The background for success in our activities we see in the wide distribution of information. Unfortunately the IMCG Newsletter and the IMCG web-page are still not available for most interested people in Russia. Technical problems are only secondary. The main cause, unfortunately, is still the language. The solution was found in a Russian web-page, supported from GPI funds. Everybody who speaks Russian is welcome on www.peatlands.ru. No information, with the exception of the most general, is available here in English. All what we can say in English, we promise to deliver to IMCG and GPI web-sites. At the same time the most significant information from those web-sites will be placed in Russian on "www.peatlands.ru".

These are some consequences of GPI input to Russian mire conservation and we will do our best to sustain those achievements further.

http://www.peatlands.ru will be active around the 15th of April

Water to the walkway

The National Forestry Service of the Netherlands is studying the possibilities to lead water to a 4.500 year old board walk. The boardwalk runs on a depth of 80 – 120 cm below the surface of a bog remnant near Emmen. Drainage of the surrounding area has lowered the water level in the bog and has accelerated the decomposition of the wooden remnants. The Forestry Service has involved engineers and archaeologists to find a solution. One option studied is to install sprinkler irrigation that provides water to the site of the 400 m long track. A difficult technical problem is water quality. The rescue operation is expected to cost up to € 1.4 million…

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http://www.imcg.net

Peatlands study tour in China

Following the Wetland Restoration Symposium in Nanjing (China) September 8-13, 2002 (www.sws.org/china/), our IMCG Main Board member Xianmin Meng plans to organize a Peatlands study tour in the Changbai mountains of the Jilin Province, China.

The Changbai region of Northeast China is abundant in peatlands. It consists of 5 mountain ranges of 800km long stretching in northeast-southwest direction. The elevation ranges from 200 up to 2691 metres. The annual average temperature is $2\text{-}10^0$ C, whereas annual average precipitation amounts to 600-1000 mm. The climate is characteristically warm and wet. Perennial gelisols and tundra can be found on around the volcanic Baitoushan peak (2100 m a.s.l.).

There are 8 types of eutrophic peatlands and 2 types of mesotrophic peatlands in the region. The vegetation of eutrophic peatlands varies from carex, reed-carex, birch-carex, larch-carex, reed, and others. The peat thickness is generally 0.5-2 meters but may reach 9 meter.

The vegetation of mesotrophic peatlands consists of larch-dusiyueju-nitjxian and larch-xiaye tuxiang-sphagnum. The peatlands in the area have a significant vertical-zonality (see table)

Table: the vertical distribution of peatlands in the Changbai Mountains

Elevation (in m)	topography	Vegetation zone	Nutrition type	Peat type
<550	Hill valley-basin	Mountain decidous broadleaf forest	eutrophic	Herb peat
500-1100	Basalt platform, valley	Mountain coniferous and broad-leaf mixed forest	eutrophic mesotrophic oligtrophic	Herb peat Woody peat Herb-sphagnum Woody-sphagnum
1100-1700	Slope flat divide ridge, volcano lake	Mountain coniferous forest	Eutrophic oligtrophic	Herb peat Woody-sphagnum
1700-2100	Volcano lake	Mountain ÔÀÁÖ´ø	eutrophic mesotrophic	Herb peat Herb-sphagnum
>2100	Volcano peak	Mountain tundra	no	No peat

Site 1 to be visited will be the Jinchun mire in Huinan County, located at the west slope of Changbai Mountain. The peatlands originated from barrier lake. It is 160 ha and the average depth is 2-4meters with a miximum of 9 meters. The total peat deposit is about 10,000,000 tonnes(dry weight). The vegetation consists of Carex, Eriocaulon buergerianum, Birch, and Sphagnum. The peat consists of carex and reed plant residues. Conservation status: no proteion.

Site 2 to be visited is the Hani peatland in Liuhe county on the west slope of Changbai Mountain. The area of the peatland is 1672 ha and its depth is 4.2 meter. The peat deposits amount to 12,800,000 ton(dry weight). The vegetation consists of Birch, Eriophorum-Sphagnum, conifer-Ledum-Vaccinium uliginosum-Sphagnum, and Carex. Topographically the site is a barrier lake. Due to the stable water supply and warm-wet climatic conditions, the peat has been accumulating rapidly, which resulted in the deep peat layer. Currently the site is a water resource reserve.

Site 3 to be visited are the Red Pond and Round Pond Peatlands on the top of Changbai mountain at an altitude of 1800 meters. The peat layer is thin and peat accumulation started 1100 year BP. The peatlands have no eutrophic peat layers, but apparently developed directly as oligtrophic peatlands. The Changbai mountain is part of the MAB conservation network.

Sites 4 to be visited is a peatland in Jiaohe county, which is located in a valley basin of a hill at an elevation of 270 m. The peatland area is 4775 ha and the peat depth is 1.80 m. The vegetation consists of Carex and Carex-Calamagrostis angustifolia. It is a typical eutrophic peatland.

Programme

The programme for the Changbai Mountain peatlands tour is as follows:

September 14: Fly from Nanjing to Changchun (Air ticket is 1260 RMB). Stay in the Changchun Institute of Geography, Academy of Sciences. Meeting with the director and specialists of the institute.

September 15: Departure to Changbai Mountain by minibus. Lunch on the road. Visiting site 1 during the afternoon. Stay in Huinan county hotel.

September 16: Visit site 2 and have lunch in hotel. Departure to Baihe city and stay in Baihe hotel.

September 17: Visit site 3 and Tianchi (sky pond, a volcano lake on the top of Changbai Mountain), waterfall, hot spring, underground forest. Stay in Baihe Hotel.

September 18: Visit site 4 on the road back to Changchun by bus. Stay in Changchun Institute of Geography.

September 19: Fly to Beijing (Air ticket is 820 RMB).

Costs

The total costs including airticket Nanjing-changchun and Changchun-Beijing are about 3900 RMB(~ 480 US$) per person. If any members of IMCG are interested in the study tour, please send an email to Dr. Xianmin Meng, Changchun Institute of Geography, CAS at: mengxm@public.cc.jl.cn

Vegetation fires and smoke haze in Indonesia - a chronic problem

Ivan P. Anderson

Flooding today - fire, earthquake and volcanic eruptions tomorrow. Such is Indonesia's environmental lot. Flooding may be today's big media story but it is reliably predictable that fire and smoke, mainly the latter, will be in the national news before long, whether or not El Niño 2002 materialises.

However, when reporting does occur in Indonesia it is usually only after airports close because they are blanketed in smoke (e.g. Pekanbaru and Palangkaraya last year) or Singapore/Malaysia make official complaints to the Indonesian Government because of ekspor asap from peat fires in Sumatra.

What action is being taken to deal with this problem? In January, regional authorities (Governors and Bupati) in fire prone areas of Sumatra and Kalimantan were requested by the Vice President, as the Head of the National Disaster Management Coordinating Board, to prepare a comprehensive programme for controlling fires. They were also urged to take stern action and sanctions against those guilty of causing forest and land fires. At the international level, and after four years' planning and drafting, the ASEAN Transboundary Haze Agreement will be signed in June to reaffirm a commitment among member countries to fight haze.

There is clearly agreement at the highest levels to address the problems that vegetation and peat fires cause. But unfortunately this rarely, if ever, filters down through the various levels of bureaucracy and vested interest that complicate Indonesian society to materialise as effective action on the ground.

Self-regulation within the agro-industrial sector is a way forward and formation of the Haze Prevention Group is the first serious attempt by some of the mainly pulpwood and oil palm companies to tackle the fires and haze that they are often accused of causing, although rarely prosecuted for initiating.

Using satellite data, mainly from NOAA and SPOT, detection and monitoring of vegetation fires and smoke haze affecting Sumatra and Kalimantan are now routine and highly effective procedures. In each year between the major drought and fire years associated with El Niño there are short periods of a few weeks when smoke haze events occur in Sumatra and Kalimantan. All these mini-haze events are associated with burning in peatland, whether forested or not, with Riau and Central Kalimantan being the provinces most seriously affected*.

Riau peat fires have been burning continuously since early January this year but are only now receiving attention in the local papers (Riau Pos, 9 February 2002 - Ribuan Hektare Hutan dan Kebun Musnah Terbakar. Api Terus Menjalar dan Mencemaskan (Thousands of hectares of forest and plantation destroyed by burning. Fire continues to spread and cause concern). The haze is affecting the towns of Dumai and Duri in Riau but not Malaysia/Singapore since this region is still under the influence of the North-East Monsoon. If the winds had been blowing from the opposite direction, as they will, starting about April, then the publicity would no doubt have been much greater.

Two lessons can be drawn from these relatively small but chronic fires that produce a great deal of smoke. (a) They should be tackled and suppressed in immediate response to initial detection and reporting by the monitoring agencies in Indonesia and Singapore and (b) if these mini-haze occurrences cannot be prevented (preferably) or controlled (other than by the onset of rain) then there is no hope when the next severe El Niño drought arrives. During El Niño years, the areas affected by severe drought are likely to include the peat-rich provinces of South Sumatra, Jambi and East Kalimantan - all very badly damaged by the wildfires of 1997-98.

Other points that have been made many times before but bear repeating are:

- With respect to Sumatra, there are very few sizeable blocks of primary lowland forest left and nearly all of these are peat swamp forest in Riau and Jambi. As a reminder of their fragility after disturbance, some quarter million hectares of peat swamp forest subject over many years to HPH (Forest Concession Right) logging in South Sumatra Province were destroyed by fire during 1997. Apart from Berbak National Park, these last remnants of rain forest are unprotected. Since the dryland Dipterocarp forests of lowland Sumatra have more or less disappeared, the previously disregarded peat swamp forests in both coastal and inland locations have become the focus for logging (almost all illegal) and conversion to plantations - both activities are linked to fire occurrence in an ecosystem where fire under natural conditions is hardly known.
- All the peat swamp forest in Riau and Jambi is under considerable pressure from smallholder migrant, large-scale commercial, the oil/gas industry and Government activities. Competition for access to land and forest resources is increasing. Most of the remaining primary forest has been earmarked by Government for conversion to estate plantations, mainly for industrial pulpwood.
- Clearing and draining peat swamp forest for plantations, whether for Acacia sp. pulpwood, oil palm, coconuts or rice, may be an attractive financial enterprise in the short-term but there is little evidence that the results will be sustainable in the long-term, particularly on the scale at which it is being practised along the eastern seaboard of Sumatra. Unsustainable kinds of land use are behind most of the haze problems in Indonesia. These will continue until radical changes are made to the way peatland is managed.
- Be sceptical of claims that it is just local people (the 'slash and burn' farmer) destroying the peat

forest. Small-scale farmers sensibly avoid deep peat areas, unless they are put there as part of government schemes such as the now derelict Mega Rice Project in Central Kalimantan or, in the case of West Kalimantan, local government attempts to resettle displaced Madurese in peat swamp schemes. When the local community is involved, it appears to be a collaborative arrangement with estate companies based on a production-sharing agreement.

For more information on the threat to the peatlands of Sumatra see:
http://www.mdp.co.id/ffpcp/Report11.htm

For a description of mega and mini haze events and fire in Indonesia's peat swamps see:
http://www.mdp.co.id/ffpcp/report19.htm
Ivan Anderson formerly worked with the EU-Forest Fire Prevention and Control Project, Palembang;
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Another paper on this problem was recently published in Nature by Florian Siegert (siegert@rssgmbh.de), the full version of this article has been uploaded onto the Sea-peat site (http://www.peat-portal.net). Please feel free to retrieve it for reference or contact David Lee at the Global Environment Centre, Tel : 603-7957 2007; Fax : 603-7957 7003; david@genet.po.my

The New Irish Power Stations - Wise Use?

by Noreen McLoughlin

In the December issue of the IMCG Newsletter, Mr Donal Clarke of Bord na Móna aired his views on the two new peat fired power stations that are to be built in counties Longford and Offaly, and why these developments should be considered in a positive light. The Irish Peatland Conservation Council, along with other NGOs (An Taisce, Friends of the Irish Environment, Grian, The Irish Wildlife Trust and Voice of Concern for the Irish Environment) was opposed to the power stations from the start. Objections to these were lodged by us to the various bodies concerned on the following grounds:

1. Global Warming and the Kyoto Agreement
Peat is the least efficient of all fossil fuels - it releases more CO_2 per unit of energy into the atmosphere than any other fuel. Although the two new power stations will be more efficient than the ones they are replacing, between them they will still release approximately 2 Mt of CO_2 per annum. Under the 1997 Kyoto Agreement, Ireland must reduce its CO_2 emissions to 10% above our 1990 levels by 2010. Presently, we are 13% above this level. Therefore we have an obligation to reduce our greenhouse gas emissions. However, the Organisation for Economic Co-operation and Development predicts that CO_2 emissions from peat powered electricity will increase until 2005 (to 3.15 Mt) and that by 2010 they will be at a level just below the 1998 level (2.4 Mt). These figures do not take into account the CO_2 released from other industrial processes. Given these facts, it is clear that Ireland will fail to satisfy requirements of the Kyoto Agreement. The production of more electricity from alternative and renewable sources is a practical way of reducing Ireland's greenhouse gas emissions, but the support for these renewable forms of energy in Ireland is the lowest in the EU.

As the burning of peat is a significant contributor to Ireland's CO_2 emissions, it must be concluded that the building of these new power stations is an act of extreme environmental negligence, which has completely ignored the issue of global warming. The peat extraction process also contributes to global warming through oxidation of peat as it is harvested and by removing a sink that would otherwise continue to hold and absorb CO_2.

2. Public Service Obligation (PSO) Levy
In order to finance the two new power stations, the Electricity Supply Board (ESB) needed to obtain a public service obligation levy from the EU. This means that all ESB customers in Ireland (which is the majority of households) will be paying more for their electricity to fund these stations - whether it is peat generated electricity or not. Only with this levy is it economically viable to build and produce electricity from these new power plants. The IPCC and other NGOs believe that it is wrong to ask customers to pay extra for electricity that is generated from peat - an unsustainable resource. The cost to the consumer will amount to almost 19 million Euro per annum over the life of the two new stations.

3. Employment
The proposed new power plants will operate for 15 years only, until the peat resources that they depend on become depleted. This means that the employment these power stations provide will be short term. Job creation in the midlands should focus on creating long-term employment in sustainable industries - such as power generation from wind farms. Wind energy employs a greater amount of people for the same amount of energy produced as peat powered stations and these jobs are long term. The replacing of peat generated electricity by wind generated

electricity is a feasible option and Bord na Móna have acknowledged this by planning a 220 turbine wind farm at Oweninny, Co. Mayo. This windfarm will replace a peat fired power station and it will provide an opportunity for long term employment. It will also provide many jobs in the initial stages of construction. Generating energy from wind is not restricted to upland areas and it should be considered as a viable industry for the midlands.

4. After Use of Cutaways
The granting of an Integrated Pollution License by the EPA to Bord na Móna requires that an after-use plan be submitted for the cutaway bog once the development has ceased. Despite this, there are no detailed after-use plans for the peatlands that will supply the peat to the new power stations. Bord na Mona are long over due in terms of producing after-use plans - especially in relation to the re-establishment of bog systems.

5. Economics
There is no arguing with the fact that these new power stations will be good for the economics of Bord na Móna. However, a report by the ESRI (Economic and Social Research Institute) on the use of EU structural funds in Ireland states that peat is "uneconomic as a power supplier" and that the use of EU structural funds to fund such projects should be withdrawn.

6. Nature Conservation
Ireland possesses an important part of Europe's remaining raised bog resources and as such we have an international obligation to protect those bogs that remain - even degraded raised bogs. Bord na Móna have stated that they will not be bringing any more undrained, virgin bogs into production. This means that bogs that have previously been drained are still under threat from peat extraction. Many of these may be worthy of conservation. Under the EU Habitats Directive, Ireland must designate a number of degraded raised bogs as Special Areas of Conservation (EU Habitats Directive Code 7120 - Degraded Raised Bogs). So far, no degraded raised bogs have been designated as SACs or Natural Heritage Areas (NHAs). This means that Ireland is in breach of the Habitats Directive and it resulted in the Irish Government being brought to the European Court of Justice in September 2001. In order for Ireland to comply with the EU Habitats Directive, Bord na Móna should transfer degraded raised bogs that are worthy of conservation over to Dúchas. They should also supply a detailed list of bogs that they plan to utilise in the future to the appropriate NGOs.

7. Planning Process
The planning processes involved in gaining permission for the two new power stations only considered the power station itself. It did not take into account the bogs that are to be used, after use plans or the effects on the greater environment.
Finally, we were amazed that Bord na Móna were "taken aback" by the fact that the NGOs appealed against the planning consent, the IPC licence and the PSO levy. Planning processes are there to allow interested parties to submit their views and appeal - for or against any development. Bord na Móna never contacted the IPCC about these developments. They never supplied us with maps or a list of the raised bogs that they plan to burn. We do not believe that the reactions of the NGOs to these developments were "disproportionate", but that they were justified and reasonable within the context of the planning process.

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Regional News

News from Ireland

For Peat Sake - Peat-Free Garden Campaign

For 60 years, bogs have been mined for moss peat to produce a cheap garden product. The majority of the moss peat mined from Irish raised bogs is used by amateur gardeners - an alarming statistic. Destroying the natural habitats and wildlife of the bogs is not something gardeners want to do. It is undeniable, moss peat is great stuff. It's cheap, sterile, lightweight and pleasant to handle. But only if we ignore the environmental harm we are doing to the raised bogs of the Irish midlands where it comes from.

Kicking the peat habit, that's the goal of the Irish Peatland Conservation Council's spring Peat-Free Garden Campaign. To stop the use of moss peat in the garden, the campaign will target garden centres, gardens open to the public, County Councils and the gardening public. The re-cycling of organic household and garden waste is the key. This has the additional benefit of reducing the amount of waste that goes to dump sites and it saves gardeners money. Garden centres will be encouraged to stock environmentally friendly peat-free garden composts which the gardening public will be encouraged to use instead of moss peat.

The IPCC's Peat-Free Campaign co-ordinator, Noreen McLoughlin states that using peat moss is one of the most environmentally damaging activities that a gardener - normally considered to be environmentally friendly - can do. Garden plants do not need peat, bog plants such as the insect eating Sundew do. Raised bogs are an important part of Ireland's heritage. They provide rich habitats for rare flowers, insects and birds and constitute an important archive of the past.

Unless we act soon, raised bogs will become a thing of the past. Already, less than 8% of Ireland's original raised bogs remain intact and there are up to 50 commercial moss peat producers at large throughout the country. Large scale moss peat extraction has made bog regeneration unlikely, because the land is drained and the bog surface is completely removed before extraction starts.

A factsheet on the campaign is available from the IPCC, 119 Capel St., Dublin 1, or visit the website at www.ipcc.ie.

News from Scotland: 84% coverage predicted for Lewis peatlands scheme

Scottish Natural Heritage is predicting that its Peatland Management Scheme operating in Lewis will cover 84% of the eligible area by the end of the financial year.

The scheme, which awards payments to crofters and other land managers managing land within the Lewis Peatlands Special Protection Area and Special Area of Conservation, has proved far more popular than originally expected.

The first year's targets were exceeded in just three months and now, less than two years after it was launched, the scheme has been signed up to by a total of 44 common grazings and 16 individual crofters. Payments to date amount to £84,000 per annum and the total area covered by the scheme is over 40,000 hectares, around 70% of the designated area.

SNH launched the scheme in February 2000 to accompany designation of the Lewis Peatlands SPA and SAC under the European Wild Birds and Habitats Directives. This European recognition allows the Government to meet its obligations under the Directives. It also means financial assistance under the Peatland Management Scheme can be offered to crofters and others to manage their land in a particular way.

Project officer with SNH, Mark Macdonald, said the take-up was very encouraging for SNH and is a good example of economic benefits that can come from environmental designations.

He added: "This is a voluntary scheme and people are not automatically required to sign up to it. Crofters and other land managers that do chose to sign up to it are required to follow particular management practices. This can have financial implications, so the scheme has had to be both practical and affordable to be effective. The fact that so many have already applied is very encouraging and shows that the scheme is an attractive option for many land managers of the Lewis Peatlands."

Those signing up to the Scheme agree to follow particular codes of practice regarding management of sheep and cattle, peat cutting, muirburn, management of grazing, use of vehicles, management of water, and other general land management practices. Payments vary depending on the area of land entered to the Scheme and the number of shareholders in the common grazings. A common grazings of 650 hectares and 40 shareholders would receive around £1,900 per annum.

Mark Macdonald added: "The key element of the scheme is that people know from the outset what will be required of them should they sign up to it, and what payments they can expect to receive in return. If they're not happy about that then there is no obligation to enter the scheme. Those who own and manage land are effectively holding it in stewardship for the wider community and schemes such as these make it more affordable for them to do so in a way that benefits the natural heritage. Obviously, we would like to encourage as many townships as possible to sign up."

For further information: Calum Macfarlane, SNH. Tel. 01463 723106

Notes:

1. The Lewis Peatlands has been identified as one of the best examples of wildlife sites in Scotland, and internationally, for its bird populations and active blanket bog habitat. Survey work carried out by SNH shows that the area supports populations of wild birds, at levels to match that of the Caithness and Sutherland Peatlands. The area is one of the, if not the, most important areas in Scotland for peatland waders including golden plover, dunlin and greenshank. Also, the active blanket bogs with widespread areas of undisturbed peat varying in depth between two and four metres and supporting a unique range of plant species, present an important example of a habitat type that is rare across Europe.
2. Around 59,000 hectares of the Lewis Peatlands area is classified as a Special Protection Area (SPA) under the EC Wild Birds Directive, where it supports significant numbers of wild birds and their habitats. Around 30,000 hectares within this area have the additional recognition as a candidate Special Area of Conservation (SAC) under the EC Habitats Directive, supporting rare, endangered or vulnerable natural habitats or species of plants or animals (other than birds). SPAs and SACs make up 'Natura 2000', a network of the most important conservation sites across Europe designed to protect rare, endangered or vulnerable habitats and species in the European Community.
3. In the UK, it is Government policy that European conservation sites are first notified as Sites of Special Scientific Interest (SSSI), but for a European site of this size a management scheme was seen as a more effective means of protecting the conservation interests. This approach has been used successfully for the Corncrake Special Protection Areas.
4. Scottish Natural Heritage is the government agency responsible for:

- safeguarding and enhancing Scotland's natural heritage
- promoting understanding and enjoyment of our natural heritage
- ensuring that our natural heritage is used wisely

News from the UK: Peat Producer's Association R.I.P.

On the 20th of February 2002, the Peat Producers Association voted to expand its objectives and Constitution to encompass alternative substrates, changing the focus of the Association from peat to growing media. The move entails a change of name to the Growing Media Association, acknowledging the role that peat alternatives will play in the future and more closely reflecting the actual activities of the membership.

Members of the Association are the UK market leaders in peat-free and peat-reduced growing media, and are committed to achieving the Government target of 40% peat alternative market share by 2005. By opening up membership to producers of non-peat substrates, it is envisaged that the development of more mixed media materials will be enhanced.

The principle objectives of the GMA are stated in the Constitution:

- To foster and encourage the development of effective, safe and environmentally sound growing media in the UK and Ireland.
- To establish and maintain safety and quality standards for growing media in the UK and Ireland.
- To represent the interests of the growing media industry to Government, Government bodies, consumers and other organisations.

Chief Executive Alan Shaw said: 'This is a welcome and necessary decision by the members. The total UK market currently stands at 36% alternatives vs 64% peat-based products, with the trend in growing media towards increasing volumes of alternatives. It is wholly appropriate that we change our focus from peat, which is essentially only one of many possible ingredients, to the needs of our customers in the form of safe, reliable growing media.'

'UK horticulture is at a critical point in terms of growing media – one of the fundamental inputs for growers of ornamentals and plant raisers. There are numerous pressures being brought to bear for change, many driven by agenda that do not necessarily take account of the needs of the horticulture industry. We see a real requirement for the development of growing media standards that fully assess hazard and risk, efficacy and safety. We have already made a start on drawing up robust standards with a project team led by one of the experts in the field - Neil Bragg of Bulrush Horticulture.'

The Chairman of the Growing Media Association is Dick Grice of Joseph Metcalf Ltd, who said: 'I am delighted with this move as it reflects the reality of our member's product portfolios. Several companies, for example, have introduced a peat-free and peat-reduced growing media for professional growers in the last year and this trend is sure to continue. By inviting manufacturers of non-peat substrates to join us, we can ensure that our customers will be offered effective, safe and reliable growing media that meet the needs of the environment.'

Companies and individuals are eligible for membership of the Association if they are engaged in the production, processing or supply of growing media and/or growing media components in the UK and Ireland, including companies based overseas but with an established export operation in the UK or Ireland.

Companies interested in further information are invited to contact the GMA at PO Box 15, Stowmarket IP14 3RD. Tel: 07071 780273. Fax: 01449 614634. E-mail: growingmedia@aol.com.
Information: Alan Shaw: Tel: 01449 614614

Sinking Ship, County Clare, Ireland

Peat deal saves top UK wildlife sites

Friends of the Earth has welcomed today's deal between the Government and US corporation Scotts which will save three of the UK's top wildlife sites from being destroyed and virtually end commercial peat-cutting in the UK. FOE has campaigned to save these bogs for 12 years. Under the deal, Scotts will receive 317 million in compensation from the Government to:

- immediately hand over Thorne Moor Site of Special Scientific Interest (SSSI) in South Yorkshire and Wedholme Flow SSSI in Cumbria to English Nature (EN), the Government's wildlife watchdog.
- immediately give EN half of Hatfield Moor SSSI (in S Yorkshire). Limited peat-cutting will continue on the rest for a further two years before also being handed over to the nation.

The deal, which will secure over 1,500 hectares of peat moor as National Nature Reserves, follows a long-running campaign by Friends of the Earth and the Peatlands Campaign Consortium. Friends of the Earth has recently and successfully switched its campaign focus to retail outlets. As a result Homebase, Focus and Wyevale Country Gardens have all agreed to follow B&Q's lead and phase-out peat-based products. The deal has the potential to be a real 'win, win' situation for both wildlife and jobs.

If Scotts moves towards a massive expansion of the production of peat alternatives, it can protect existing jobs and provide green employment opportunities for many years to come. Craig Bennett, habitats campaigner at Friends of the Earth, said: "Congratulations to the Government for finally securing a safe future for these internationally important wildlife sites. This is a fantastic day, and marks a successful conclusion to twelve years campaigning to save these bogs."

It is disappointing that despite insisting on such a high compensation package, Scotts intends to continue extracting peat for a further two years. However, the tide has turned, and commercial peat-extraction in the UK will soon be virtually ended. "Today's announcement is a tremendous victory for campaigners who have worked hard for conservation and common sense to come before corporate profits, and consumers who have made it clear that they won't buy peat. But we must now stop these companies from trashing wildlife sites overseas. Gardeners must continue to say no to peat imports and only = buy products labelled 'peat free'" Friends of the Earth also welcomed Scotts' assertion that the deal "marks a transition towards new, effective and sustainable growing media", and called on the company to end all its peat-cutting activities. The deal will now focus attention on rival peat company Sinclairs, who look set to challenge the UK Government in the courts over its plans to designate Bolton Fell SSSI in Cumbria - one of the few sites in the UK where peat-extraction is continuing - as a Special Areas of Conservation.

Craig Bennett craigb@foe.co.uk
http://www.foe.co.uk

A new challenge for peatland restoration in Belarus

by Franziska Tannenberger

Belarus is famous for its vast wetlands, especially the Polesye region with largely undisturbed floodplain mires, habitat to a wide range of rare species and communities. About 60% of the world population of the globally threatened Aquatic warbler were discovered in the 1990's in south Belarusian fen mires. Although politically isolated and facing economic crises, several international peatland conservation projects could be implemented successfully in Belarus in the past years. Now the country gets ready for one of the largest peatland restoration projects in Europe.

More than 40% of the overall peatland area of 1950 (2,939,000 ha or 14,2% of the total area of the country) were drained between 1950-1990. Out of the total 1,303,000 ha of anthropogenically transformed peatlands, as of 2001, Belarusian mire scientists estimate about 700,000 ha as potential sites for peatland restoration. In the last decade, agricultural use of drained peatlands declined significantly since the land is no longer as productive as it used to be. As time went by, a large number of drainage facilities were going out of order and wetlands re-established on many drained sites. Currently drainage systems servicing more than 500,000 ha need capital reconstruction (and money the Belarusian state is not likely to spend due to serious and continuing economic hardship), drainage facilities of another 200,000 ha require substantial maintenance work. Moreover, in the peat-extraction industry, the total area of peatlands completely extracted and subsequently abandoned rose dramatically. There are currently 209,500 ha of extracted peatlands in Belarus – an area growing rapidly every year and presenting a high danger of fire.

Recognising both the urgent need of degraded peatland site management and the great potential of peatland restoration for biodiversity conservation and with special regard to the CO2 issue and Belarus' obligations in numerous international conventions, the Ministry of Natural Resources and Environmental Protection, the national NGO "Bird Conservation Belarus" (APB), the Royal Society for the Protection of Birds (RSPB), and UNDP developed the project "Conservation, restoration, and wise use of degraded peatlands in Belarus". March 25-27, 2002, the inception workshop was held near Minsk. At the workshop, some 25 stake-holders from agricultural and peat-mining state agencies, local executive authorities, and scientific institutions discussed the project, particularly criteria for eligible sites and a preliminary list of potential areas for restoration.

They agreed on expected outcomes, activities and indicators within the project. Proposed project achievements are: An inventory of anthropogenically degraded peatlands in Belarus, the selection and restoration of 5-6 sites with an estimated area of 10-15,000 ha, the establishment of monitoring schemes and legal protection status for the project sites, and the development of guidelines on best practices of peatland restoration under the country's particular conditions.

News from Russia: Prominent Baltic raised bogs: exploitation or conservation

It's a well-known fact that the formation of telmatology as an original science at the beginning of the XX century is to a great extent obliged to the works of famous German researchers such as Jentzsch, Weber, Gross, Wangerin, Gams, Ruoff, Hueck etc. East Prussia was the region where mire study in Germany developed most actively in that time.

Patterns of mire structure and development were generally revealed and described on the basis of "model objects" – individual mires that were investigated in all kind of aspects in great detail. Among them were two East Prussian bogs – Augstumal (now in Lithuania) perfectly described in Weber's (1902) book (see elsewhere in this Newsletter) and Zehlau (now in the Kaliningrad Province of Russia), which became known by the work of Gams & Ruoff (1929). These two bogs, together with Osvald's Komosse and Bogdanovskaya-Guiheneuf's Polisto-Lovatskoye, are now considered as classics of telmatology as well as of all geobotany since a number of typical descriptions of bog plant associations was recorded just here.

Unfortunately, Augstumal and Zehlau are similar not only by their study history, but also by their further destiny connected with their "fighting for survival". The main question raised now with regard to both bogs is: exploitation or conservation?

Since its description by Weber, Augstumal has been severely impacted by reclamation and peat extraction. Currently it is part of the Nemunas Delta Regional Park, but peat extraction is still continuing and expansion of these damaging activities is under discussion.

In some aspects Zehlau has been a little bit luckier than Augstumal: already in 1910 it was designated as a state nature reserve (Naturschutzgebiet). After World War II it became part of a military training area with a limited visiting regime and consequently the bog remained nearly unspoiled. For that same reason, however, Zehlau has also during all these years been in the "shadow" with respect to conservation activities and scientific research. These were only resumed in the beginning of the 1990s. Significant events in this respect were the joint Russian-German Zehlau expedition held in 1994 with participation of specialists from the universities of Kaliningrad, Bremen, and Greifswald, as well as the inclusion of Zehlau into the shadow list of important wetlands in Russia (1998).

In spite of this dissimilarity to its Lithuanian twin-brother, Zehlau has still not any protection status. Moreover the area is under severe threat of destruction, because both the oil-company Lukoil and forestry agencies have great interest in the site for oil exploitation and forestry, and the territory of Zehlau still falls under the jurisdiction of the Russian Ministry of Defense.

More attention of international nature protection organizations for these "Baltic pearls" can possibly contribute to the conservation of these two valuable objects of natural and cultural heritage in the Baltic region, that many years ago have inspired famous scientists to create a new branch of science. Their disappearance would be a real tragedy for the territories where they are situated.

Maxim Napreenko, Kaliningrad State University

News from Lithuania: "Between conservation and use: C.A. Weber and the Augstumal Peatland"

The preparations for the October symposium jointly organised by the German Peat Society (DGMT) sections I (Geosciences) and V (Nature Conservation and Land Use Planning), the International Mire Conservation Group (IMCG), scientists of Vilnius University, and the administration of the Nemuno Delta Regional Park (Lithuania) are well underway.

The first draft of the English translation of the Weber Austumal monograph is finished and is currently being corrected.

That the Augstumal Peatland has been less lucky than Zehlau with respect to its conservation may not be too remarkable considering the stance Weber himself takes on the last pages of his book. The display of confidence in the German-Prussian supremacy is as much part of the time when the book was written as the luxuriant long and convoluted sentences of Weber:

> "The lovely but less energetic Lithuanian type of man was not able to become as much a master of the peatland wilderness as the man from Niedersachsen in Northwest Germany, who follows his goal with a tough drive and energy. Under the influence of man our peatland that up till then had been a moss peatland, at first only slowly started to change into a cultivated heath peatland. But since the Prussian State has (with care and energy) commenced the reclamation of the peatland, the last remains of its original physiognomy will have completely disappeared already before the end of the decade. On the southwestern parts, where I crossed the pathless moss peatland with difficulty

and only slowly in 1898, I could surely and rapidly move on firm roads in 1900; newly built houses were shedding their light up front and the fields, waiting for their first crop, stretched as far the eye could reach. Where shortly before the only thing the lonely wanderer heard in his strenuous marches through the wide, silent wasteland was his own pounding heart, where the lost cry of a bird rapidly flying by or the silent, moaning cry of the wind in the crippled pines could hardly interrupt the silence of the wilderness, there soon the song of larches and the call of quails can be heard and the joyous sound of playing red cheeked, blond haired children will fill the air; where the tired wanderer of difficult paths once poorly satisfied his hunger with berries, an abundant wealth of man high grain will rustle, and where shy cranes once nested between bleak mosses, cattle will graze with bursting udders on lush meadows, and the scythe of active cutters will sound in harvest of the rich benediction of the meadows.

"Who has experienced the old state of the peatland and compares it to the nearby future will not have any doubt what to prefer, even when as friend and explorer of nature he will see the genuine naturalness dwindle with a feeling of painful sorry."

For further information about the symposium and preliminary registration contact Hans Joosten: Joosten@uni-greifswald.de

News from Malaysia: Workshop on prevention and control of fires in peatlands

March 19-21, 2002

The recent outbreak of forest fires has raised a lot of concern among the local and international scientists on the efficacy of currently employed management strategies that were designed to safeguard these valuable resources. Fires have destroyed or degraded over 1.5 x 10^6 ha of peatlands in Southeast Asia since 1997. A workshop on prevention and control of fires in peatlands was held from March 19 till 21, 2002 in Malaysia. This event was jointly organized by the Forestry Department, Peninsula Malaysia and Global Environment Centre with support from ASEAN Regional Centre for Biodiversity Conservation. More than 60 participants from Malaysia and selected countries from the ASEAN region attended this workshop. Issues on fire prevention, conservation and rehabilitation of peat swamp forests in Southeast Asia were examined.

Several ultra-modern fire-fighting strategies designed specifically for peatlands were introduced in this workshop. The latest fire-prevention methods were also discussed. The workshop concluded that the water-table levels in peatlands should be maintained at high levels to prevent peat fires. Peatlands are best left untouched to allow such systems to perform their specific and unique functions.

Several recommendations were made based on the fact that rehabilitation of peatlands as well as combating fire in such systems has been extremely difficult, often met with greater failures with heavy financial and biodiversity losses. A concerted effort to combat the susceptibility of peatlands to fire hazards is urgently needed between the various agencies nationwide as well as between the affected countries in the region.

The full workshop statement is available on GEC's peat portal (http://www.peat-portal.net). In this respect, GEC is working with other parties to develop follow-up activities such as demonstration sites for fire control/rehabilitation and awareness information exchange activities. GEC would be very happy to hear from IMCG members with experience in peat fire prevention and control or in post fire rehabilitation who would like to share their experience with those in this region.

Please contact Dr Eswaran at eswaran@genet.po.my.

News from Southern Africa

Compiled by Piet-Louis Grundling

We can now for the 1st time gave you some news from Southern Africa, because it is not only in South Africa where peaty things are taking place.

The Working for Wetlands Programme and peatlands

The poverty relief initiative of the South African government, the "Working for Water Programme," has officially renamed its wetland rehabilitation programme the "Working for Wetlands Programme." This programme will again receive R 30 million (Euro 3 million) in the financial year 2002/2003 from the Department of Water Affairs and Forestry to rehabilitate degraded wetlands. Forty wetlands were targeted this year, of which 9 are peatlands. Look for more news on our successes (and failures...) in trying to restore our peatlands in the next issue of this Newsletter.

Peatlands and the electricity brokers

The world is about to loose a unique mire: The Waterval Vley Mire (Waterfall marsh peatland).

The Electricity Supply Commision of South Africa (Eskom) is planning to develop a pumped storage scheme in the Waterval Vley Mire, a valley bottom fen dominated by *Phragmites australis* and *Carex* species. It is located on the eastern edge of the South African Highveld Eco-region (on the Escarpment near Van Reenen) and is about 350 ha in extent.

This Highveld fen is unique in various ways:

- It is one of only 3 valley bottom fens occurring in the Free State Province (and there were only 4 peatlands are known from Free State Province; the fourth was located in the north and was destroyed by sand and coal mining).
- It is at 4.6 m one of the deepest peatlands in the interior of South Africa and is the deepest and also largest peatland in the Free State Province of South Africa.
- With an age of 10 745 years Before Present, it is the oldest peatland in the Free State and the second oldest in the Highveld.
- It has been a stable environment since the last Ice Age and contains fossil pollen and macro remains of important scientific concern, such as climatic change, ecological development of the Highveld, the Wilge River Catchment etc.
- It is the only peatland in southern Africa (and for that matter possibly in the world) associated with a prominent waterfall (and indeed three in this instance) directly situated on its inflows.
- With an estimated peat volume of 10 810 000 m^3 of peat it is one of the most important sponges and the most important carbon store in the Wilge Catchment.

The Waterval Vley Peatland is a unique peatland in terms of its setting, extent, thickness of its peat bed, and age. Little is known of its origin, development, and the extent of its contribution to the hydrological functioning and balance of the area, as well as its contribution to bio- and habitat diversity in terms of peatland ecosystems. As almost everywhere in the world, the peatland is under threat of destruction by farming, mining, drainage, and damming.

South Africa is currently spending R 30 million on wetland rehabilitation and yet is planning to destroy the unspoilt ones. It is estimated that only 1 % of all the world's peatlands occur in South America and Africa together. South Africa cannot afford to loose another wetland or a crucial part of it, especially not when it is of the order and magnitude of the Waterval Vley peatland. We know Eskom needs to supply our country's energy demand, but wetlands mean water, and water, as you all are well aware of, is one of our greatest needs.

We here in South Africa would welcome and appreciate support from IMCG members to halt this senseless potential destruction of a mire unspoilt and most likely unique in a global mire context.

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On 28.03.2002, the last day of the IMPESA Workshop, the lobby of our South African colleagues proved successful when the responsible South African Minister definitively refused permission to build the water reservoir. For the time being the unique Waterval Vley Mire is saved and IMCG hopes to visit it in 2004 during its biennial meeting.
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Mushroom versus mire

In February the South African mushroom industry hosted its annual symposium near Johannesburg and was addressed on the issue of peat exploitation. There is concern about a potential moratorium from the government on the mining of peat. The mushroom industry was addressed on the same issue about 4 years ago, when they were informed about the impact of the industry on this rare and unique wetland type in southern Africa.

Not much was done since then, but the peat mining debate was re-opened by recent events:

- a shortage of peat due to flooding in peatlands,
- a potential shortage of peat due to the delay in issuing of mining permissions, and
- the recent decline in the value of the South African monetary unit (the Rand) against the US Dollar and the Euro has made it very expensive to import peat, but
- has on the other hand opened the door for possible mushroom exports to Europe.

The mushroom industry indicated during this symposium that the price of mushrooms would increase with about 5 % (R1 per kg) when environmental concerns are given more consideration. This is a relatively small price to pay to maintain healthy mires, if one considers that it is the middle class and the wealthy that consume mushrooms (and use potting soils).

In the light of the mostly dry and unstable climate of southern Africa the question must therefore be asked again whether with an average rainfall per annum (497 mm a^{-1}) of more than 300 mm less than the world average (800 mm/annum) a whole country (and mostly the poor from previously disadvantaged communities) must suffer from a lack of clean drinking water, while the wealthy consume mushrooms and plant their flowers in potting soils?

Below is some background information on the South African peat industry as taken from the Peat Wetland Eco-Region Report (Marneweck et al. 2001).

Current demand and use (short-term needs)

The current volume of peat utilized in the country varies between 70 000 and 85 000 m^3 per annum. Mushroom growers in South Africa use about 44 000 m^3 moist peat per annum as casing, and nurseries use between 30 000 and 40 000 m^3 of moist peat per annum. The value of 70 000 m^3 of peat at the time of extraction prior to transport varies between R 3.5 million and R 4.5 million. The added value of the peat in terms of peat based horticultural products (such as potting soils), nursery potting plants, mushrooms, and other products might be 20 - 50 times more. Certain peat deposits with very neutral pH may even increase this added value because of lower input costs.

Present estimated volumes of peat being mined from the larger operations in South Africa are shown in table 1. All these operations are restricted to the Highveld Peatland Eco-Region at present.

Table 1. Sites and annual volumes where peat is currently being mined in South Africa.

Peatland	Nearest Town	Estimated volume of peat mined: (m3)
Rietfontein	Bapsfontein	12 000
Rietspruit	Tarlton	15 000
Witfontein	Randfontein	< 1000
Gerhard Minnebron (2 mines)	Potchefstroom	30 000 - 40 000
Schoonspruit	Ventersdorp	10 000 - 20 000 ?

The Mooiriviersloop in the Highveld Peatland Eco-region has been the catchment most affected in terms of the number of peat mining operations. Five of the 17 peatlands mined in the Highveld Peatland Eco-region (Table 2) occur in the catchment of the Mooiriviersloop. Two of these peatlands are still actively being mined by 4 operators. Four of the 17 peatlands mined in the Highveld Peatland Eco-region occur in the catchment of the Klip River. Other peatlands were mined in the catchments of Harts River and the Schoonspruit. More operations are planned in the Schoonspruit. This means that almost 70% of the peatlands that have been mined in the Highveld Peatland eco-region are located in the catchment of the Vaal River (Grundling and Marneweck, 1999).

Two peatlands were previously mined in the Limpopo Plain Peatland Eco-region. Two mined peatlands (including one operating peat mine) are located in the Rietspruit, a tributary of the Crocodile River. One mined peatland occurs in the Sesmylspruit, another tributary of the Crocodile River. A tributary of the Koffiespruit in the upper catchment of the Olifants River is presently being mined.

Future demand (Long-term needs)

The demand for peat has declined over the past 10 - 15 years. The nursery industry used to utilize between 40 000 - 60 000 m^3 of peat per annum. The current requirement for peat by this industry has therefore dropped and it is speculated that this is mainly due to the partial replacement of peat by decomposed pine bark and the recycling of mushroom compost waste. Peat utilization by the mushroom industry has also dropped from 52 000 m^3 per annum forty or so years ago to 42 000 m^3 in 1999. It has since risen slightly to appr. 44 000 m^3 per annum, and the industry is expecting a growth rate of about 3 %. This is on par with the country's expected growth rate.

Peat related products (mainly mushrooms, potting soils, and flower related products) are mainly in demand from the middle and higher income classes of the South African Society, as well as the entertainment sector (restaurants, floral shops, golf courses, etc). As the base of this sector grows and the Rand continues to devaluate against outside currencies, particularly those of Canada and the United Kingdom (main international suppliers of peat), the future demand for locally produced peat is expected to increase.

An unknown factor in future demand might be the use of peat in alternative and new technologies. These include the use of peat as a growing medium, fertilizer and fuel as well as a filter and purifier of industrial, municipal, and domestic effluent and gas (Bélanger et al.,1988). Medical applications range from therapeutic peat baths to the treatment of skin ailments including leg and gastric ulcers and cancer. Various acids in the peat are extracted as a basis for such medicinal applications, some of which are still in a research phase (Bélanger et al., 1988). This also includes potential application in veterinary medicines, pesticides, and fertilisers used for organically grown food. Recently (1999), there has been an application for a permit to mine peat in the Schoonspruit Karst Fen (Highveld Peatland Eco-region)at Ventersdorp to produce:

- A high yield, clean pathogen-free feedstock in the preparation of organic liquid fertiliser; and
- Organic acids.

The initial demand on this peatland is 16 000 m^3 of peat per annum, but this may potentially increase it to 100 000 m* per annum over the next 20 years (Roux and Van der Merwe, 1999).

Table 2. Sites, volumes, status and surface areas where peat is currently or was previously being mined in South Africa.

Name	Peatland Eco-Region	Operator and / or processor	Mining Status	Surface area mined (%)	Volume mined/ year (m^3/year)
Lichtenburg	Highveld	Lichtenburg Town Council	Abandoned	~ 5 - 15	-
Malamani	Highveld	Landowner: Dr. Vlok	Abandoned / Partially Rehabilitated	~ 5 3 - 5 ha	-
Schoonspruit	Highveld	Van Soelen Peat Topgrow (V. Grobler) Rouxcor Holdings (W. Van Rooyen)	Abandoned (+ Lime [peat ash] mined) Total Planned	10 - 20 (5ha peat, 25ha lime, 13ha burnt) 100 (95 ha) on farm Roodepoort 191 IQ	- Planned: 12 000 - 120 000
Gerhard Minnebron	Highveld	S. Viljoen, J.P.Viljoen & W.J. Smuts (S. Viljoen, J.P. Viljoen, *pers. comm.*, 1999), I. Stander	Ongoing Total Planned Rehabilitation	6 40 - 50 Ongoing	6 000 - 12 000 7 000 - 14 000
Witfontein - North	Highveld	Van Rooyen, J. Le Grange, Dries Oostuisen, Mushanige CC	Abandoned - Rehabilitation	85	-
Witfontein - South	Highveld	J. Asplink Topveen CC (K. Botha)	Closure on Topveen portion Nearly completely mined Rehabilitation in Progress	50 ~ 70 Ongoing	1500
Venterspos	Highveld	No Info	Abandoned	No Info	-
Wonderfontein	Highveld	No Info	Abandoned	No Info	-
Tarlton South (Rietspruit)	Highveld	Schipper Culterra (G.Griffioen)	Abandoned Ongoing Total Planned Rehabilitation	8 4.5 21.5 Ongoing	15 000
Tarlton North	Highveld	H. Du Preez J. Botha P. Language D. Langley	Abandoned Rehabilitation	25	500
Vlakfontein	Highveld	No Info	Abandoned	No Info	-
Klip River, north-western arm	Highveld	Niemand Miller	Abandoned	5 - 15	-
Klip River, main body	Highveld	Van den Berg Culterra (G.Griffioen)	Abandoned	11	(~30 000)
Elandsfontein	Highveld	Elandsfontein	Abandoned	No Info	-
Rietvlei	Highveld	Culterra	Abandoned Rehabilitation	30 - 50	-
Rietfontein	Highveld	Vindex (Stanton, Peppler)	Ongoing Rehabilitation	60 (100) Ongoing	24 000
Bankplaats	Highveld	Du Plooy	Abandoned	90	-
Mutale	Limpopo Plain	Venda Forestry	Abandoned, 1 % (.25 ha)		
Bluegumspoort	Limpopo Plain	Previous Landowner/Unknown	Abandoned Burnt, totally desicated. 70% (3 - 5 ha)		
Trafalgar (Lot 187)	Eastern Coastal Belt	Landowner: Mr Bodie & Tongaat	Abandoned, intensive tomato cultivation. 30 % (2 - 3 ha)		
George (Golf Course)	Southern Coastal Belt	Stadler Farms ?	Abandoned Rehabilitated to golf course (20 %) 2 -3 ha?		

The mushroom industry as well as some of the peat miners has expressed its concern about the rising cost of transport of peat from the Highveld where it is currently being mined to the coastal areas where there is a demand for peat. Areas such as Durban, Port Elizabeth and Cape Town are included as potential demand centres. As a result, a need has been identified to find peat resources closer to these centres. The following coastal or related peat eco-regions might therefore experience demands in future:

- Natal Coastal Plain Peatland Eco-region
- Eastern Uplands Peatland Eco-region;
- Southern Coastal Belt Peatland Eco-region; and
- Cape Fold Mountains Peatland Eco-region.

South Africa is mostly a dry and arid land and mires and peatlands are unique and rare features in the landscape. We (in South Africa especially) need to acknowledge the importance of these ecosystems and that of wetlands in general. Exploitation needs to be discouraged and wise-use principles must focus on the "secondary" industries related to peatlands such as eco-tourism, water utilisation etc. The use of and the research in alternatives to peat should be encouraged.

Communities must be encouraged to take ownership of their mires. It is only then, when we value these precious systems, as more than just a economic resource, that we would secure their, and ultimately, our survival on planet Earth.

Please contact Piet-Louis Grundling for more details or comments at peatland@mweb.co.za / + 2712 808 5342

References

Bélanger, A., Potvin, D., Cloutier, R., Caron, M. and Theriault, G. (1988). Peat a resource of the future. Centre Québécois de Valorisation de la Biomasse. Riviérè-du-Loup, Quebec Canada. 115 pp.

Grundling, P.L. and Marneweck, G.C., 1999. Mapping, Charecterisation and Monitoring of the Highveld, Wetland Consulting Services (Pty) Ltd. Report for the Institute for Soil, Climate and Water (ISCW), Agricultural Research Council, Pretoria, South Africa

Marneweck, G.C., Grundling, P.L. and Muller, J. 2001. Defining and classification of peat wetland eco-regions in South Africa, Wetland Consulting Services (Pty) Ltd. Report for the Institute for Soil, Climate and Water (ISCW), Agricultural Research Council, Pretoria, South Africa

Roux P.L. and van der Merwe D.S. 1999. Environmental Management Programme (EMPR) and Environmental impact assessment (EIA) for Roodepoort Peat Operations.

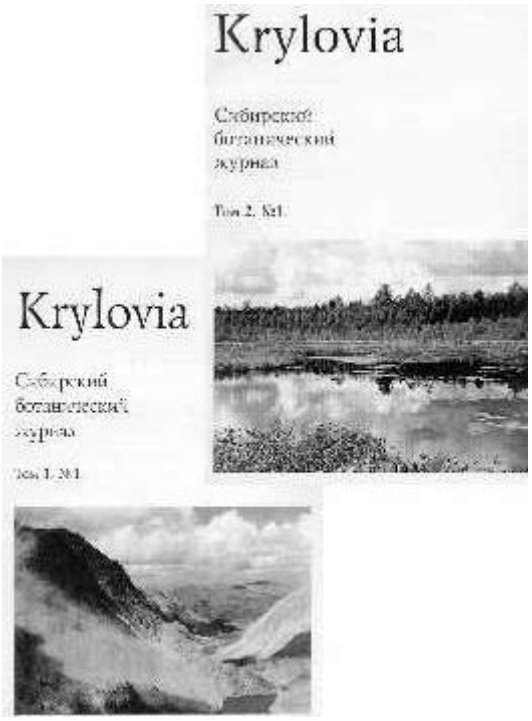
New and recent Journals/Newsletters/Books/Reports

Krylovia: New Siberian Botanical Journal

(A.S.Revushkin, Editor-In-Chief)

Siberian botanical science does not have a very long history. The establishment of a botanical department in Tomsk Imperial University by the well-known Russian botanist P.N. Krylov was associated with the increased development of Siberia at the end of the XIX century. In the second half XX of century the further scientific centres of botany in Siberia in many respects developed under the influence of the scientific school of P. Krylov.

During the last decades development of botanical science in Siberia has intensified. Interest in Siberian nature from both Russian and foreign researches has increased significantly. Besides the academic centres of science in Novosibirsk and Tomsk University, scientific schools actively working in different directions have appeared in Barnaul, Krasnoyarsk, Irkutsk, Kemerovo, and other Siberian cities. The botanical research has become much better co-ordinated with the realisation of various scientific conferences. At these meetings an old idea of Krylov was repeatedly raised – the creation of a scientific journal devoted to the research of Siberian vegetation. Now botanists of Tomsk University have finally released such a



journal. In spite of initial difficulties and mistakes in the preparation of the first issues, we hope that the initiative will be supported by Russian and foreign botanists.
"Krylovia" (Siberian Botanical Journal) is issued since 1999 in Russian and in English. To the present time there were 4 numbers in Russian, each in volume about 140 pages. The scope of the journal covers a wide array of research on the vegetation and plant resources of Siberia and adjacent regions. The editorial Board invites Russian and foreign scientists to publish their articles on general problems of botany (including palaeobotany, plant ecology, landscape ecology, environmental science etc.) and results of research in Siberia and surrounding countries.
Articles written in English will be published in separate English issues. The journal includes the following sections:
- Theoretical problems of modern botany
- Vegetation of Siberia and adjacent territories
- Notes on flora and plant taxonomy
- History of botany and botanical education
- Protection and wise use of flora and vegetation in Northern Asia
- Chronicle, Obituaries, Anniversary, Review etc.

For more information please contact the Editorial Board:
634050, Russia, Tomsk, Avenue Lenina, 36, Tomsk State University, Biological and Soil Science Faculty, Siberian Botanical Journal "Krylovia".
Phone: 007-3822-410690, fax: 007-3822-426201
sbj@ecos.tsu.ru
or surf to: http://www.herba.msu.ru/journals/krylovia/

Wetlands NewsLink - A Compilation of Wetland & Migratory Bird News from Around the World

Wetlands NewsLink is a Monthly News Service supported by the Association of State Wetland Managers, Inc and the U.S. Geological Survey.
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Contents vary each month but generally include
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- Wetland Publications
- Migratory Bird News & the North American Waterbird Conservation Initiative
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Bern Convention Emerald Network Bulletin

This newsletter is designed to inform all actors involved in the establishment of the Emerald Network, the network of Areas of Special Conservation Interest developed under the Bern Convention.
The latest issue focuses on:
- The Emerald Network in the Mediterranean region
- Development of the SPAMI network
- A 1st Mediterranean Conference on Marine Turtles
- Towards a Euro- Med Sustainable Development Strategy
- Up-coming events

And gives overviews of:
- The Emerald Network Library
- Useful Internet pages

The Emerald Network Bulletin is also available on the Web site of the Council of Europe: http://www.nature.coe.int/
For further information on the Emerald Network Bulletin: Sandra Jen, WWF European Policy Office; SJen@wwfepo.org
For further information on the Emerald Network: Helene Bouguessa Council of Europe F-67075 Strasbourg France; Helene.Bouguessa@coe.int

Peat News

Peat News is the monthly electronic information bulletin of the International Peat Society. It is distributed to members mainly by E-mail. If you want to subscribe for this newsletter, you can do so by sending an E-mail to ips@peatsociety.fi. Any comments and suggestions for the content of the next issue are always welcome.
On 6 March, 2002, a special edition of Peat News was published on the occasion of the handover of great parts of peatland in the UK to English Nature (http://www.peatsociety.fi/news/ipsnewsuk.htm).
Updated versions of the Newsletter can each month be found at www.peatsociety.fi/news/ipsnews.htm

Aapala, K. (ed.) 2001. Soidensuojelualueverkon arviointi. Suomen ympäristö (Assessment of the network of protected mires in Finland). Suomen ympäristö (The Finnish Environment) 490:1-285. (in Finnish)

This report is part of the project 'Assessment of the Finnish nature reserve network' carried out in the Finnish Environment Institute. The report includes seven papers considering the ability of the nature reserve network to maintain the ecological functioning and species diversity of mires.

1. *Kallio, M. & Aapala, K. Spatial changes in mire landscape and the value of the nature reserve network.* Changes in the spatial structure of mire landscapes and the importance of the nature reserve network were studied in a 80 km x 80 km area in western Finland using GIS. All the largest mires have been fragmented due to drainage. Most of the remaining undrained mires are small. Only few large, undrained mire complexes will be left outside the nature reserve network, if all the peat exploitation reservations included in the regional plans will be implemented. Drainage intensity in the 300 m zone around protected areas is the same as elsewhere in the study area.
2. *Tuominen, S. & Aapala, K. Using multitemporal digitized aerial photographs to monitor change in ombrotrophic bogs.* Digitized, multitemporal aerial photographs were used to analyse changes during the last 60 years in a partly drained, partly protected, concentric bog in southern Finland. Clear changes, e.g. increase in tree cover, disappearance of the microtopographic features or decrease in the amount of open water areas, were detected both in the undrained and drained parts of the mire complex. Ecological evaluation of the boundaries and restoration and monitoring of the changes of the protected bog complexes are needed.
3. Aapala, K. *Ecological characteristics of the boreal spruce mires and their protection status*. Spruce mires are considered to be among the most species rich forested habitats in boreal zone. The 8th national forest inventory and the protected area database of the Metsähallitus were used to analyse the protection status of spruce mires. Both the amount and the quality of the protected spruce mires are unsatisfactory, especially in southern Finland.
4. Aapala, K. *Threatened mire species.* Habitat preferences and current distribution of nationally threatened and nearly threatened mire species were analysed using the 2000 Red List of Finnish species based on the new IUCN criteria. There are 217 nationally threatened and near threatened mire species in Finland. Of these 123 are genuine (occurring only in mires or mires form the main habitat) and 94 facultative (occur mainly in other habitats but may also occur in mires) mire species. Threatened species occur in all species groups (most in bryophytes, vascular plants and invertebrates) and in all mire types.
5. Aapala, K. *Eriophorum latifolium - an example of a regionally threatened rich fen species.* The population structure of the regionally threatened rich fen species Eriophorum latifolium was studied in 15 localities in southern Finland. In addition, the current state of all the remaining localities in hemiboreal and southern boreal vegetation zones was analysed. There are 94 localities left, of which approximately half are in undrained mires. Almost half of the localities are included in the nature reserve network. Nevertheless, most of the protected populations are very small, which increases the risk of regional extinction of the species.
6. Pöyry, J. *Threatened mire butterfly species and their protection status in southern Finland.* Lists of 130 mire butterfly species, their distribution in Finland and the plant species used by larvae were compiled. Six of these species are nationally threatened and eight nearly threatened. The protection status of 11 nationally and regionally threatened butterfly species was analysed. The effect of drainage, size and isolation of the mire on the survival of butterfly populations were studied in southern Finland. The species most sensitive to drainage occurred only in the largest, undrained mires, which were isolated from each other by several kilometres.
7. Virkkala, R. & Rajasärkkä, A. *The role of protected areas in preserving mire bird populations.* The role of the protected areas network for mire bird species was studied based on bird censuses carried out in the reserve network of the whole country. The study included 23 mire bird species, most of which favour open mires. A significant part of the most valuable mires for birds have been protected, because both the amount of protected mires and the density of most mire bird species populations are highest in northern Finland.

The report is available in the Internet (in Finnish) http://www.vyh.fi/palvelut/julkaisu/elektro/sy490/sy490.htm

More information from kaisu.aapala@vyh.fi

Kuvaev, V.B. (ed)., 2001. Peat ecosystems of West Siberia and their environmental importance (In Russian). Grif & Ko Press, Tula, 584 p.

The West-Siberian plain is of extraordinary interest for the study of peat bogs, because of the huge size of its peatlands and the extremely large variety of their vegetation, landscapes and peat deposits. The peatlands are largely undisturbed and therefore they can be regarded as an environmental example to estimate the biospheric importance of peat bogs both on a regional and global scale.

In the above mentioned book the extensive data collected by several generations of scientists during the complete history of peatland investigations in Western Siberia are summarized. The book presents in eight chapters a short description of the history of peatland studies, an analysis of the physical-geographical factors of paludification in the Holocene, comparative characteristics of peat stratigraphy in different zones and subzones of Western Siberia based on the data of macrofossil plant remains and palynological and radiocarbon analyses of peat samples, a description of 64 peatland unit types, particularly focused on their actual peat forming vegetation. The development of peatlands in different zones in the Northern, Central and Southern part of Western Siberia is generally described. Based on 'key' peat cores the average rate of peat increment, as a whole and in the different periods of

the Holocene, is described. A division scheme for the zonation of peatlands of Western Siberia is offered. Especially the influence of peatlands on the hydrology and the climate of Western Siberia, as well the role of peatlands in the Carbon Cycle, are discussed. A lot of attention in the book is paid to peat resources and some recommendations for their use are given. The stocks of peat and Carbon within the surveyed peat deposits of industrial importance (more that 0.7 m thickness) in different subzones of the forest zone and the forest-steppe zone are presented.
In the appendix of the book for the first time a floristic checklist of species, growing on peatlands (lichen, bryophytes, vascular plants), has been published. Despite its incompleteness, it is of great importance.
A doubtless advantage of the book is the rather complete list of references covering the overwhelming number of publications about peat bogs and some features of the natural environment of Western Siberia.
For more information and ordering: Dr. Nina Ulanova: am@pyrola.msk.ru

Heikkilä, Raimo, Oleg Kuznetsov, Tapio Lindholm, Kaisu Aapala, Vladimir Antipin, Tamara Djatshkova & Pavel Shevelin 2001: Complexes, vegetation, flora and dynamics of Kauhaneva mire system, western Finland. -The Finnish Environment 489. 97 pp.

As a result of Finnish-Russian cooperation in mire conservation research, a monograph on Kauhaneva mire system in western Finland has recently been published. The aim of the study has been a comprehensive ecological analysis of a large protected mire to understand the functioning and the state of the ecosystem, as well as threats to the nature reserve. In Kauhaneva mire there is an exceptionally high diversity on mire complex, site type and plant species levels. During 9000 years the mire has developed from minerotrophic fens into a diverse system of bogs and aapamires. The publication has numerous colour illustrations. It is available in the internet:
http://www.vyh.fi/eng/orginfo/publica/electro/fe489/fe489.htm.
It is also available for IMCG members as a paper copy free of charge from raimo.heikkila@vyh.fi

Foppen, R., 2001. Bridging gaps in fragmented Marshland – applying landscape ecology for bird conservation. Alterra Scientific Contributions 4: 1-168.

This thesis attempts to elaborate a landscape ecological line of thought for the problem of fragmented marshland and conservation of bird species. It tries to bridge two ‘gaps’. Firstly, the gap (in literal sense) between remaining pieces of marshland. What is an effective spatial strategy for the persistence of marshland birds in The Netherlands? How should we ‘bridge’ the gaps between our remaining habitats? The second gap is metaphorical and refers to the transfer of ecological knowledge gathered in case studies and at the species level into tools and instruments for application in nature management and policy. In conclusion, the central questions of this thesis are: (1) under what spatial conditions do marshland birds demonstrate negative effects of fragmentation and (2) how to utilise ecological knowledge for practical tools in conservation?
The results indicate that the primary option is to enlarge existing marshlands, creating at least five key populations for most of the marshland birds. This requires extension of the size of most existing marshlands by nature restoration, aiming at totals of 5000 - 10 000 ha. Next, a marshland ‘backbone’ should be created with restoration of medium–sized marshlands along several axes. By this way marshland bird populations in the periphery are better ‘connected’ with the core areas and will show a higher, regional, persistence. It will also enhance the probability of occurrence and saturation in existing marshland areas and thus is a cost-effective measure.
Copies of the thesis are available for free from Alterra, please contact Connie van Doorn at: c.c.g.vandoorn@alterra.wag-ur.nl or Tel.: +31 317 477810

Paulson, C., 2001. Die Karstmoore in der Kreidelandschaft des Nationalparks Jasmund auf der Insel Rügen. PhD thesis Greifswald University, 296 p.

The author studied 30 peatlands on the German Isle of Rügen with respect to vegetation and its dynamics, hydrology, stratigraphy, trophic state, and morphology as well as their environmental and anthropogenic history. The hypothesis is posed that, contrary to current opinion, karst phenomena are more common and still affect the peatlands.
For more information contact Christina Paulson: c.paulson@t-online.de

O’Carroll, E., 2001. The archaeology of Lemanaghan – the story of an Irish bog. Bord na Móna, 29 p.

This full colour, abundantly illustrated booklet presents a popular account of the recent work of the Archeological Development Services Ltd in Bord na Móna peat bogs in counties Offaly and Longford. One of the aims of the booklet is to illustrate the wealth and diversity of the archeological sites and artefacts preserved in Irish bogs. The link between the peatland sites and the dryland archeological monuments is also considered.
Read more about excavations on Bord na Móna bogs at: www.bnm.ie//group/conservation_and_afteruse/archaeology_excavations.htm, where also short reports on excavations (pdf) can be downloaded.

Rach J. 2000. Charakterisierung von Renaturierungsprozessen in Bruchwäldern: ökologische Untersuchungen in zwei Landschaftsräumen Nordwestdeutschlands. 201, [48] p. - Oldenburg, Univ., Diss.

In the scope of two rewetting-projects, drained woody swamp sites were examined and differentiated from each other using pedological and phytosociological methods. By means of N-mineralization combining with nitrification degree, near to natural moist forest communities could be well differentiated. The development of characteristic parameters during the rewetting-period proved to be particularly dependent on the method of rewetting. The sites concerned by inundation produced high amounts of NH4+ and almost no NO3-. At the slowly rewetted sites the NO3--production decreased without increase of the rate of N-production. FTIR-spectroscopic investigrations showed a decrease of carboxylation of isolated humic acids during re-creation of anaerobic conditions. In columns of peat with similar basic characteristics clearly diverging processes occurred during rewetting-experiments in lysimeters. The investigations imply that the effectiveness of rewetting-measures must be estimated for each individual drained woody swamp site on the basis of suitable characteristic parameters. The integration into the landscape and the method of rewetting should be included in these parameters.
The thesis can be downloaded under:
http://docserver.bis.uni-oldenburg.de/publikationen/dissertation/2001/raccha00/raccha00.html

Sargeant, H.J. 2001. Vegetation fires in Sumatra Indonesia. Oil palm agriculture in the wetlands of Sumatra: destruction or development? Government of Indonesia, Ministry of Forestry / European Union, European Commission. 50 p.
Downloadable from:
http://www.mdp.co.id/ffpcp/report14.pdf

Griendtsveen AG, 2001. Fünf Generationen Torfabbau - Griendtsveen Torf AG 1901-2001. 122p.
This book tells the history of one of Europe's oldest peat companies that lived through a whole century of industrial changes, depressions, and wars.
For more information contact Griendtsveen AG, Postfach 3106, D-26681 Saterland, Germany

Die Heimat 108:185-256 (Nr. 11/12), 2001. Themenheft Niedermoore (Special Issue on fen peatlands). (in German)

This issue features 6 papers on the fen peatlands of Schleswig Holstein in Northwest Germany, ranging from general articles on future use, restoration, and conservation to papers focussing on the success of restoration measures in individual peatlands.
For more information contact Michael Trepel: michael@ecology.uni-kiel.de

Kvet, J., Jeník, J. & Soukupová, L. (eds.) 2002. Freshwater wetlands and their sustainable future. A case study of Trebon Basin Biosphere reserve, Czech Republic. Man and the Biosphere Series Vol. 28, UNESCO/Paris and Parthenon/ Baton Rouge, 495 p.

The Trebon Basin has been modified by human activities for more than eight centuries. The result is a semi-natural countryside, a mosaic of more than 500 artificial fishponds (partly on former peatlands), forests, meadows, fields, mires, and other wetlands, crossed by numerous small streams, canals, and dykes. Trebon Basin has long been the focus of intensive ecological research, and was designated as a Biosphere reserve in 1977. It is also an important Ramsar site.
Over the last decades, many researchers have taken part in research at Trebon, coming from a variety of disciplines and working at a range of different space and time scales and levels of biological complexity, from the cellular to the ecosystem. This volume presents research findings in five sections: 1) the key role of wetlands in the Trebon Basin; 2) fishpond management and its ecological consequences; 3) the wetlands surrounding an ancient man-made lake; 4) mires and peatlands in a marginal situation; and 5) future prospects for the Trebon wetlands, including their ecological and socio-economic functions and their roles in energy and material flows at the landscape level.
Section 4 pays attention to the identity, exploitation and conservation of Trebon Basin peatlands (also contrasted to Czechian mountain mires), their palaeoecology, hydrology, insect fauna, avifauna, and vegetation. But not only this section is interesting for mire ecologists and conservationists. Section 3 provides a lot of ecological information on mire plants and animals (life strategies, production ecology, effects of floods) and mire (related) communities including wet meadows and wetland forests and shrublands. Section 5 provides data on primary production and carbon accumulation. A nicely edited book!
For more information contact Lenka Soukupová: papackova@ibot.cas.cz

Schmilewski, G. (ed.) 2001. Peat in Horticulture. Peat and its alternatives in growing media. Proc. Int. Peat Society, Jyskä, 56 p. Price EUR 15.

Proceedings of a symposium with the same title in Amsterdam, October 30, 2001. Provides an up-to-date overview of (partial) alternatives of peat, such as core pith, composted biogenic waste, Toresa® and other wood-fibre products, and bark and bark compost. Covers also the following questions

Why do we need other materials than peat in growing media?
How important is peat in horticulture?
Obtainable from: ips@peatsociety.fi

Uppenberg, S., Zetterberg, L. & Åhman, M. 2001. Climate Impact from Peat Utilisation in Sweden. IVL Swedish Environmental Research Institute Ltd. 44 p.

The climate impact from the use of peat for energy production in Sweden has been evaluated in terms of contribution to atmospheric radiative forcing. Two different methods of after-treatment were studied: afforestation and restoration of wetland. The climate impact from a peatland – wetland energy scenario and a peatland – forestry energy scenario was compared to the climate impact from other fossil fuels (coal, natural gas) and forest residues. Sensitivity analyses were performed to evaluate which parameters that are important to take into consideration in order to minimize the climate impact from peat utilisation.
The main conclusions from the study are:

- The accumulated radiative forcing from the peatland – forestry energy scenario is comparable to the radiative forcing of the use of natural gas in a 180-year perspective, and between forest residues and natural gas in a longer perspective (300 years) assuming a medium-high forest growth rate and methane emissions from the virgin mire.
- The accumulated radiative forcing from the peatland – wetland energy scenario, will lie between the radiative forcing of the use of coal and 2/3 of that of the use of natural gas in a 300-year perspective, depending on the assumed carbon uptake rates for the wetland and assuming a medium-high methane emissions from a restored wetland
- The climate impact from utilizing 1 m^2 mire for fuel production can be equivalent to using anything from forest residues to coal as energy source, depending on after-treatment and original conditions at the mire that has been utilized.
- It is important to consider methane emissions from the virgin mire when choosing mires for utilization. Low original methane emissions give significantly higher total climate impact than high original emissions do.
- Afforestation on areas previously used for peat extraction should be performed in a way that gives a high forest growth rate, both for the extraction area and the surrounding area. A high forest growth rate gives lower climate impact than a low forest growth rate.
- There are great uncertainties related to the data used for emissions and uptake of greenhouse gases in restored wetlands. The mechanisms affecting these emissions and uptake should be studied further.
- Except for some small errors (some geographical bias, some double counting, the omission of positive effects of after-use of coal and gas extraction sites), the report is very interesting and methodically largely sound.

The report indicates that a kind of long-term *carbon* sustainability with respect to peat extraction can only be reached when the total designated area for peat extraction (i.e. the total of the area under extraction plus a large area where active peat accumulation is still/again taking place) is at least 400 times larger than the area presently used.
This is, however, only possible when a maximum CO_2 sequestration after extraction is realised (see also the contribution of Anne-Jelle Schilstra in IMCG Newsletter 2001/4). This requires an after-use in the form of cultivation of new sphagnum (peat) ("paludiculture"): an after-use of forestry does not lead to long-term carbon sustainability. In the latter case peat extraction keeps its fossil fuel character.
The report can be downloaded under: http://www.ivl.se/rapporter/pdf/B1423.pdf

Fitzpatrick Associates EconomicConsultants 2001. New peat-fired power stations: socio-economic impact in the Midland Region. A report to Bord na Móna. Fitzpatrick Associates , Dublin, 51 p. + annexes.

Making wise decisions depends on adequately valuing all the aspects involved. A first requirement is that an inventory is made of all values. This report describes the socio-economic aspects related to the burning conflict of the new Irish peat power plants, which has been described in this Newsletter from a conservational point of view, and in the former Newsletter from the perspective of the peat extraction company, who also commissioned this study.

UPCOMING EVENTS

See for additional and up-to-date information: http://www.imcg.net/imcgdia.htm

6th Conference of the Parties of the Convention on Biological Diversity
the Hague, The Netherlands, 8-19 April 2002
See elsewhere in this Newsletter or surf to: http://www.biodiv.org/

European Geophysical Society General Meeting
Nice, France, April 21-26, 2002
See previous Newsletter

2nd International Conference on the ecology and conservation of floodplains and lowland mires in the Polesie region
Minsk, Belarus, 22-26 May 2002
See previous Newsletter or contact: dimago@mail.ru

SWS 23rd Annual Conference
Lake Placid, USA, 2-7 June 2002
See previous Newsletter or surf to: http://www.sws.org/lakeplacid/

IMCG Biennial Symposium, Congress & Conference
France, 10-22 July 2002
See previous and elsewhere in this Newsletter or visit: http://www.imcg.net/docum/france.htm

VIII INTECOL Congress: Ecology in a changing World
Seoul, Korea, 11-18 August 2002
See IMCG Newsletter 2001/2 or contact: farina@intecol.org; http://www.intecol.org

IPS Symposium: Future Utilisation of Peatlands
Bremen, Germany, 22 – 24 August 2002
See previous Newsletter or contact: Joachim.Blankenburg@bgr.de

3rd European Conference on Restoration Ecology
Budapest, Hungary, 25-31 August, 2002
"Challenges of the new millennium - our joint responsibility". For more information: http://www.altagrabusiness.hu/confer3.html

The Third international Symposium on the Biology of Sphagnum
Norway and Sweden, 13-23 August 2002
Surf to: http://www.vm.ntnu.no/sphagnum2002

Peat In Horticulture – Quality and Environmental Challenges
Pärnu, Estonia, 3-6 September 2002
See previous Newsletter or contact: raiko_g@mv.parnu.ee, or surf to: http:// www.peatsociety or www.mv.parnu.ee/-bdc

Asian Wetlands: Restoration of Structure, Function and Values
Nanjing, China, 08-13 September 2002
See Newsletter 2002/3 or surf to: http://www.sws.org/china

The Role of Wetlands in Biosphere Reserves.
Czech Republic 13-18 October 2002
This workshop is organised jointly by the Czech National Committee for the UNESCO Man and the Biosphere Programme (MAB), Czech Ramsar Committee and Palava Biosphere Reserve. The aim will be to evaluate the contribution wetlands can make to the sustainable functioning of Biosphere Reserves, as postulated by the Seville Strategy. For more information contact: Eva Jelinkova, Secretary Czech MAB National Committee, Narodni 3, CZ - 110 00, Prague 1, Czech Republic. mab@kav.cas.cz

Ramsar Convention on Wetlands COP8
Valencia, Spain, 18-26 November 2002
For more information contact: Ramsar Secretariat, Gland, Switzerland; Tel: +41-22-999-0170; ramsar@ramsar.org; http://www.ramsar.org

Peatlands - archaeological sites - archives of nature - nature conservation - wise use
Hanover (Germany), 17. - 21. September
For more information contact Andreas Bauerochse, Niedersächsisches Landesamt für Denkmalpflege – Paläobotanik, Scharnhorststr. 1, 30175 Hannover, Germany, Tel. +49/511/925 5350, Fax +49/511/925 5296; andreas.bauerochse@nld.niedersachsen.de

International Symposium "Between conservation and use: C.A. Weber and the Augstumalmoor"
Silute (Lithuania), October 2002
See regional news in this and the previous Newsletter; for further information and preliminary registration contact Hans Joosten: joosten@uni-greifswald.de

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