



INTERNATIONAL MIRE CONSERVATION GROUP

NEWSLETTER

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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 a Main Board of currently 13 people from various parts of the world that has to take decisions between congresses. Of these 13 an elected 5 constitute the IMCG Executive Committee that handles day-to-day affairs. The Executive Committee consists of a Chairman (Jan Sliva), a Secretary General (Hans Joosten), a Treasurer (Philippe Julve), and 2 additional members (Tatiana Minaeva, Stuart Brooks).

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

Editorial

The last IMCG Newsletter of the year and the largest in history! The frustration of every editor: the longer the table of contents the smaller the editorial. We thank all contributors for this informative Newsletter. Apologies when our editing might have been rougher than expected. We wish you all the best for 2003 and we hope to be able to skip the editorial completely next year because of your abundant contributions.

Please keep sending in news and publications on mires and peatlands. Also for information or other things, contact us at the IMCG Secretariat. Address updates should be sent to Jan Sliva (sliva@wzw.tum.de). In the meantime, keep an eye on the IMCG web-site: <http://www.imcg.net>

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Ramsar COP8

by Tatiana Minaeva

Chronicle

The 8th Conference of Contracting Parties (CoP) of the Ramsar Convention in Valencia has become a real event for the mire world. Everybody could clearly observe the outputs of our efforts to integrate mires and peatlands in the Ramsar process. What are those outputs?

The general outputs are: Now a wide range of people related to Ramsar – politicians and specialists – know what mire and peatland is, that they exist, and that they are wetlands. The Ramsar Bureau and Secretariat accepted the role of mires and peatlands, and agreed with IPS/IMCG interventions in the Ramsar process and even designated it officially. The peatland working group got real possibilities to influence the Ramsar process.

The concrete outputs are:

- Resolution no 17, the Guidelines for Global Action on Peatlands (GGAP), was adopted. Even the long-long discussion on what is peatland in Finland and Lithuania and what is peatland in other parts of the world could not spoil the fun. To solve the terminological Babylon, a footnote taken from the IPS/IMCG Wise Use statement was proposed – and accepted;
- in the mentioned Resolution a GAP Coordination Committee as a Ramsar body is suggested. We succeeded in rejecting the proposal of the Asian working group to fix the funding of that structure outside of Ramsar;
- Resolution no. 3 on Climate change and Wetlands contains a number of references to the role of peatlands. It was especially difficult to keep in the reference to their possible role in Climate Change. The US and Australia strongly opposed to connect the Resolution to peatlands. The real „sharp stone” in the Resolution was the question on the official source of the information. The review or explanatory paper, prepared for the COP8 by the Australians, was so weak that most of participants expressed doubts, that Ramsar has sufficient expertise in this issue. The USA went even further and insisted that only the IPCC of the UN Climate Change convention produces reliable background information. It was decided to apply to the IPCC to produce for Ramsar a special review on the role of wetlands in climatic change. This is an important point that IMCG and IPS should thoroughly monitor.
- As people say due to the activity of Nick Davidson, all resolutions, including the Strategic Working Plan, were checked to include references to the GGAP where appropriate. The same work was done by IMCG during the first days of the Conference, some of recommended interventions were undertaken by IMCG members who were official delegates of their countries;

- The GPI side event and presentation of the Peatlands Wise Use book was a successful and effective PR action. It was a good replication of the Hague side event on the Conference of the Convention on Bio-Diversity (April 2002) and this approach should be used further. Now Climate Change events need to listen to what and how important peatlands are! The Wise Use Statement flyer in all possible (official Ramsar) and impossible (Russian) languages was very popular.

Acknowledgements

All these positive results were also possible because 8 IMCG members were official national delegates for their countries, including Juris Jatnieks, Karen Jenderedjian, Kai Kimmel, Alexander Kozulin, Tatiana Minayeva, Clayton Rubec, Olga Starodubtseva, and Michael Steiner. The IMCG thanks these people for their tremendous work during the conference and for their interventions that progressed the decisions of the Conference relevant for mire conservation. We also thank Wetlands International, especially Marcel Silvius, Saskia Henderikse, and Mishka Stuij for their valuable input in organizing the GPI side event. And we also thank IPS for the fruitful partnership.

What has not been done.

- The criteria for the designation of peatlands as Ramsar sites were not adequately changed
- The Ramsar inventory list still leaves some possibilities for changes related to specific functions of mires
- The IMCG positions had not been prepared beforehand and were therefore not presented on behalf of an NGO
- IMCG has not made a systematic effort to use this large forum to expand its membership.

Lessons learned.

The IMCG-EC held its meeting during the Conference. In future IMCG should only plan such meetings before or after, not during such an event. The absence of delegates in the Conference sessions due to the IPS/IMCG meetings caused significant difficulties to further push through the decisions.

The preliminary work with draft resolutions should be done by IMCG beforehand in the same way as national delegations do that.

The IMCG should be present in the Ramsar COPs not only through national delegates, that are IMCG members, but also as IMCG itself. IMCG should work during sessions and make interventions, actions, and proposals just as many other NGOs do.

We should develop and apply mechanisms to recruit new members during such large international conferences and meetings.

We hope that those recommendations will be taken in account by the IMCG EC and will be reflected in the IMCG Strategy and Action Plan.

Some other bright events and comments

One of the bright examples of how NGOs work during the Conference was the activity of WWF International. WWF had come up with plenty amendments to resolutions (when supported by any country it is accepted by the conference as a voice), interventions of support, and PR actions. The PR actions included presenting „dead ducks” to the representatives of countries, where wetland conservation is inadequate. As one of the criteria was the absence of additional Ramsar site designations in the last 5 years, the Russian Federation also got such an „award.” WWF also suggested to list such countries in Resolution no. 10, where the lists of countries with badly managed sites etc. are presented. This is an example of how organisational capacity may exceed the capacity in expertise and knowledge. We tried to explain the well-dressed boys in ties of WWF that if a country has adequately designed the system of Ramsar sites from the beginning, there is no need to designate more Ramsar sites. For example the number of Ramsar sites in the UK compared to the area of the country is really frightening. Another example: the system of strict nature reserves in Russia (zapovedniks) is something where other countries can only dream about: a very strict protection regime, federal land ownership, a constant staff, a unified monitoring system. Wetlands are also protected by that system. Any Ramsar site is just rubbish compared to the Russian strict nature reserve. But as a reply to our explanations we only saw the typical WWF manager with the nice blue eyes reflecting the scheme of PR = membership = \$\$\$.

And why IMCG was not there with its international expertise? Where was our expertise during the discussions about the Spanish hydrological plan, or about wetlands in mountains etc.? The national delegates have to express the position of their country and they have special mandate from their Government and relevant instructions. Their representing the IMCG position could contradict that job. They can support the IMCG position, but cannot present it. Especially they cannot refer to international expertise as IMCG can. That is the case and a point to think about, folks.

A view from the inside

Ramsar COP8 was my first personal experience taking part in such an event as a national delegate. That gave me the possibility to see the real process how people solve their personal problems and satisfy their ambitions, how they solve the narrow problems of their organisations and groups by means of manipulation with such a phenomenon as „official endorsement.” The official representatives of 130 countries have supported it – so who has any doubts now? You always could avoid discussions, or use the time when the opposition left for the toilet or fell asleep occasionally. The main thing is to prepare the background. The Ramsar convention is something very special from that point of view. We were faced with that fact when we started to work on the Wetlands Federal Law in Russia one and a half year ago. Initiating the process we argued that we need national legislation to apply the Ramsar convention in Russia. Then the lawyers in our Parliament told us: „Okay, that is the text of the convention and it is all about the list of places where waterfowl land during their migration or stay during breeding. And what you suggest is wise use, regulations on resource management in all wetlands all over the Russian inventory. That is not relevant to the convention.” It was very difficult to explain that the Resolutions of 7 COPs had changed the convention so much, that it is now absolutely another document. We had translated all resolutions into Russian, but they don't believe us till now. So what is convention about? Wetlands as ecosystems or wetlands as habitats? It is obvious that there should be different documents for the first and for the second. Yes, IMCG was lobbying the ecosystem approach in the Ramsar convention since 1996. But that lobbying was to the some extend a „partisan” activity, similar to somebody lobbying the decision of COP to provide a job for his uncle. There is no chance to have any special convention on wetlands. Maybe it would be wise to specify with a resolution of the COP explicitly that now the Convention about wetlands as ecosystems and to forget the „especially as a habitats for the waterfowl”. Maybe the time has come for that...

IMCG Executive Committee Meeting

Valencia 19th November 2002

The IMCG Executive Committee met in Valencia, literally in the lobby of the Ramsar Convention meeting. Present were Jan Sliva (Chair), Hans Joosten, Stuart Brooks (minutes), Tatiana Minaeva, and John Couwenberg. Several other IMCG members, who participated in the Convention, joined part of the discussions.

Internal organisation

Jan reported that since the last report (Besançon July 2002) the **membership** has increased slowly from 276 to 282. The number of supporters has decreased by 1 to 15 – this is due to one supporter seeking ordinary membership. All agreed that membership could be significantly increased if more resources could be put into recruitment.

A discussion followed on the benefits of **disclosure of membership details** – it was accepted that this would improve informal networking. However, before contact details of all members could be distributed to all members (this could happen annually) the legal position has to be clarified.

Hans reported that the **web site** is functioning very well and is becoming increasingly used. All agreed that Michael Trepel is doing an excellent job. The **secretariat** is a little behind schedule in sending out the Besançon resolutions but this would be done soon. The **Newsletter** is running smoothly and is on schedule for dispatch on 20th December.

As Philippe (who could not be present) had not sent through a **financial report**, it was not clear if the necessary arrangements had been made to set up the credit card payment facility.

IMCG is responsible for two recent **publications** (The Weber Augstuma book and the Wise Use book, see elsewhere in this newsletter) the sales conditions and arrangements were discussed. The Weber book should cost EURO 30 for non-members and EURO 20 for IMCG-members. All agreed that a reduced price for IMCG members was potentially beneficial as it might encourage people to join. For people with currency problems the book can be delivered for a special price. Suggested sale price there is 80 roubles. The book will be distributed free to selected Russian libraries. Weber book was printed in Russia, this could also be used as distribution point. If sole distribution is from Russia, Tatiana will need to liaise with PJ to manage revenues. It was agreed that sale and distribution of books needs to be co-ordinated and all stock needs to be accounted for.

Ideas were put forward and a discussion took place regarding sale and distribution of the Wise Use book. General sales and distribution would be handled by the Natural History, Environment and Science Bookstore (NHBS) based in the UK - www.nhbs.com. Publicity, sales and distribution would be handled by NHBS in agreement with IPS/IMCG (to be discussed at joint IPS/IMCG

meeting, see elsewhere in this newsletter). However, IMCG will request c.150 books for distribution – targeting individuals and organisations with restricted budgets. IMCG would expect to share any ‘profit’ from book sales with IPS.

With respect to the **Constitution** Hans reported that he had raised a number of constitutional issues in the last newsletter and requested comment. No comments had been received to date. This would be progressed again to resolve outstanding issues.

With respect to future **IMCG Meetings**: Jan would be in Africa before Christmas to discuss details on South Africa 2004 and report back in time to include something for the next Newsletter. Discussion centred on the need for IMCG input to the Tierra del Fuego area 2005/06. The relative remote location would restrict attendance but enough of the membership may be able to attend to contribute to a small meeting and associated field visit. Agreed by all that at the moment it is impractical to locate the biannual General Assembly and Congress there. No news was available on Finland 2006. IMCG has been approached by Donal Clarke, chairman of the organising committee for the IPS International Peat Congress in Ireland in 2008, „if the IMCG would consider holding its annual meeting in Ireland in 2008 at the same time as the IPS Congress, thus facilitating the sort of interaction which was such an excellent feature of the Quebec Wetland Event.”. The IMCG –EC was of the opinion that IMCG should definitely be represented at the meeting but it is doubtful that it will provide the location for the IMCG General Assembly. The bi-annual meeting is one of the strongest instruments that IMCG has to influence national policy and it is felt that IPCC is doing such a good job that an alternative location might benefit more from IMCG input. Hans will contact Peter Foss (IPCC) to discuss the issue. No decision was made yet.

External Contacts

Previous discussions had taken place regarding IMCG becoming an expert working group of **Wetlands International**. It was agreed by the EC that the international arena has changed so much in the past years, that policy advocacy would be more effective if both organisations remained independent of each other.

The **European Habitats Forum** includes representation from some of the most significant NGO's in Europe. IMCG has a seat at the forum but its input is currently limited and its representation is unclear. A number of IMCG members currently receive papers. EC feel that IMCG should contribute effectively to this forum. A new IMCG representative is being sought.

IMCG has been a members of the Peatland Working Group of the **Ramsar STRP**. As part of the Valencia

meeting, the contracting parties will consider a resolution on the Guidelines for Global Action on Peatlands (see elsewhere in this Newsletter). An aspect of this is to convene a co-ordinating committee to oversee the GGAP implementation. IMCG will be asked to provide representation – it should seek to maximise this. IMCG can also be represented directly on the STRP. It was agreed that IMCG representation on the co-ordinating committee should be as close to the EC as possible to facilitate two-way communication. Stuart volunteered to represent IMCG but expressed some concern about funding attendance of meetings. Herbert Diemont said that the GPI could be considered as a possible funding source. Michael Steiner also expressed an interest in the role depending of his position representing Austria in the STRP.

Contacts have been made with both the vice-chairman (Piet Wit) and chairman (Hilary Masundire) of the **IUCN Commission on Ecosystem Management**. Jan will meet Hilary in Botswana in December to discuss IMCG and in particular the 2004 S. Africa meeting.

A formal memorandum of understanding with the **Society of Wetlands Scientists** was developed to a draft stage and progressed within IMCG by Clayton Rubec. Its actual status and progress within SWS is unknown. The EC agreed to sort that out in order to conclude the issue rapidly.

Tatiana is IMCG representative on the steering committee **Global Peatland Initiative** (GPI). She gave an update on the project review and selection procedure. Although there are still some difficulties objective procedures have now been developed and organisation has improved from the first year when time constraints were apparent. A significant proportion of funds this year have gone to projects in S.E. Asia. A total of 32 projects have been funded

this year, details of which will be posted on the new GPI website www.globalpeatlands.net. The EC discussed IMCG 'endorsement' of potential GPI projects. It was agreed that any project going forward as an IMCG project should first be approved by the EC.

The Joint Meeting between **IPS** and IMCG (scheduled for following day) was prepared by discussing each of the agenda items (see elsewhere in this Newsletter).

Action Plan

Time limitations constrained discussion on the Action Plan but it was agreed that a new column should be added to show responsibility for delivery of actions (could be individual or organisation). It was agreed that the plan would start and terminate on the calendar year (i.e. start 1st January 2002, terminate 31st December 2006). It was agreed that there should be an annual review (against progress) of the plan and it should also be a standing item on the EC agenda.

Any Other Business

EC agreed that the profile of IMCG could be improved – this could lead to more members, greater potential for funding and improved political standing. Although many **PR** opportunities are taken at the local level these are uncoordinated and difficult to regulate. Strategic PR is rarely considered. It was agreed that Stuart would take on the role of PR Co-ordinator for IMCG.

Faizal Parish (Global Environment Centre) outlined his **project** „Integrated Management of Peatlands for Biodiversity and Climate Change” that has just secured \$2.5 million funding. Significant outputs of the project would help deliver IMCG (Action Plan) objectives.

IPS-IMCG meeting, 20 November 2002, Valencia (Spain)

In Valencia IPS and IMCG continued their tradition, started in Surwold 1997, to regularly meet each other. Present were 10 IMCG members and 11 IPS members (incl. some double members).

The first item was the distribution and finances of the Wise Use Book. A professional bookseller with a wide geographical distribution (natural history book sellers: www.nhbs.com) has been involved. In Ireland the book will soon be launched in a large campaign. For that reason an introductory text to the book will be prepared as well as a press release. Both will be available to interested IPS and IMCG members.

IMCG proposes that IPS handle the selling of the books. In turn, IMCG will handle promotion, making obvious that the book is a common product of IPS

and IMCG. The revenue of the book should then be divided as follows: 1/3 for promotion and sales, 1/3 for IPS and 1/3 for IMCG. A total of 2500 books have been printed, of which 200 will be distributed at the Ramsar CoP8 on Thursday 22 November. There have been 1400 pre-orders. The remaining 1100 books will be distributed at 30€/piece retail. Stuart Brooks will handle promotion of the book, this in close contact with Donal Clarke (IPS)

The use of the Wise Use Statement leaflet as a promotional tool is shortly discussed. As this leaflet was conceived independently of the Wise Use book and its content does not cover that of, nor states anything about the book, the leaflet cannot be used as sole promotion material.

Donal Clarke (IPS) informed that IPS will develop a DVD for its Tampere meeting in 2004 on the basis of the WU book. IMCG involvement is requested to ensure objectiveness.

Stuart Brooks introduced the IMCG view on peat certification. IMCG has recently brought forward an action plan. It was decided by the IMCG General Assembly that an IMCG policy on this important topic shall be developed. A draft policy will be discussed in the next IMCG-EC meeting (June 2003) and then be circulated for wider circulation among the membership.

A brainstorming ensued during which the following points were noted:

Herbert Diemont points out that certification is a marketing tool and that as such the first step shall have to come from the industry. Is the industry interested in certification and of what products etc. One has to make sure that certification brings added value, that it goes further than legislation that is already in place.

Alan Shaw views certification as a logical extension of the wise use principles. The private consumer will, however, not be prepared to pay more as (s)he is not conscious of the problems and products involved. Hence there is no added value for this private market. There are demands from the trade (retailers), however, although this does not constitute a true added value.

Magnus Brandel stresses the importance of the process underlying certification. He explains that his idea is that areas can be designated where there exist no conflict of interest, as has been done in Sweden. There extraction will not take place in virgin areas in National Parks, other parks, and Natura 2000 sites. Certification would function comparable to Environmental Impact Assessment on an international level. Certification can also be of national importance where governments have to decide between extraction and conservation.

Juhani Päivänen mentions that in forestry certification is already in place, based on the market and functioning on the level of the company as well as on the national level. It is a voluntary system. In Finland 95% of the land is already under a certification system.

Hans Joosten further clarifies the point of view of the IMCG. According to the IMCG Action Plan first a IMCG policy has to be developed and endorsed. IMCG strives for certification to be in place by 2006. In relation to the Wise Use approach, certification will need to address social, environmental, legal, and other aspects. The question remains what needs to be certified: is it countries, where legal mechanisms are in place, is it companies, sites, or products? The whole chain from production to actual use is involved and this should be reflected in a certification: certification should therefore not only deal with products but also with the processes behind the products. The advantage of certification for IMCG and mire conservation is that it entails a dynamic process in which "decent" companies outcompete

„indecent" ones, and peat extraction moves from sites where much damage is done to sites where less damage is done.

Referring to the checklists as presented in the WU book, Joosten reminds that these have not yet been tested in practise and that it is not yet clear how many „yes" and „no" answers would be required.

Timo Nyronen proposes to check the WU checklist to see how it would work in practise.

Markku Makela raises the question of who is certifying.

Tatiana Minaeva presents her view on the subject. To her the long-term goal is to go peat-free. Certification may be a tool to further conservation of peatlands in the meantime. Currently there are many hot-spots of conflict between peat extraction and conservation, like e.g. the Baltic region. In future these conflicts will move into other areas, notably also into Russia. Such changes mean that countries as such, with their differences in development planning, legal instruments, and situation etc, cannot be certified.

Development of a certification mechanism must involve both industry and conservation. The industry knows the market very well. Conservation knows the threats very well. As certification is a marketing tool, the industry's marketing people will have to develop the mechanisms but they will be closely monitored by conservation people, who formulate boundary conditions, tools, and check the outcome against the aims of conservation. Certification would be a voluntary instrument as opposed to obligatory instruments like EIA and legal frameworks. The relationship between certification and these obligatory instruments needs to be worked out.

Magnus Brandel states, that – as peat covers 25% of the area of Sweden – peat extraction can be continued without causing environmental problems. Ways have to be found to avoid or minimize conflicts. In Sweden a very strict legislation is in place.

Alan Shaw further addresses the aspect of certification as a marketing tool for extractors. The UK will soon be importing 80% of its peat. Therefore marketing will be in the hands of peat-brokers and those who sell to end-users (of both peat and peat base products). They want to identify spots where peat is extracted in a decent way, i.e. the best areas from where peat can be imported.

Markku Makela poses the question whether a consortium of IPS and IMCG would be interested in acting as certifying body.

Michael Steiner points out that there are three phases that need to be addressed. Firstly, the site selection process (legislation, licensing), which is a matter of legal rules and although it may thus be influenced by NGO's, it is not through certification. Secondly, there is the site exploitation. This is an area where IPS and IMCG can work together, developing guidelines and certification mechanisms. Thirdly, there is product marketing, which is very hard to influence.

Picking up on Minaeva, Stuart Brooks underlines the importance of time. Things change and what is wise now may not be so in the future. Therefore any

certification shall not be a one-off exercise, but needs continuous reviewing.

Information exchange between IPS and IMCG was the next point on the agenda. The idea is to organise information exchange between the two organisations, because a verification of information would make it easier to solve real problems. Usually on a local level, where the problem occurs, opinions are entrenched and information is coloured. Exchange on a higher level would in such cases make a more objective overview possible, supporting moderation between the local parties. The proposal is to exchange via the respective secretariats. Gerfried Caspers opposes such a formalisation of procedures. He is in favour of a more pragmatic approach, as it is currently upheld. Joosten agrees and proposes to at least offer the respective newsletter forums to express „views from the other side.” This proposal is welcomed. A future Memorandum of Understanding or a resolution resulting from this meeting was proposed to document this agreement. The need for that was, however, doubted and a gentlemen’s agreement, written and published with these minutes was seen to suffice.

Jack Rieley lead the discussion on how to bring IMCG and IPS closer together and asks what happens after the WU project has successfully been ended with the publication of the book. The outcome of the present meeting as well as the meeting itself will largely determine the answer to that question. International cooperation can be on subjects such as: certification, international conventions (need for common or joint approaches), GPI, publications (journal, see below); national through information exchange and ‘trouble shooting’ (see above), and general cooperation again through joint publications (journal) and through the various working groups in place. As for the latter, optimisation is needed. Stuart Brooks supports the idea of getting together as organisations and again stresses the point that IMCG is currently finalising its Action Plan, part of which will deal with cooperation with other organisations. Responsible persons will in due time be appointed under the auspices of the IMCG-EC. IPS will be informed and approached where necessary.

Tatiana Minaeva lead the discussion on Future outlook and prognosis and raised the point that long-term planning of activities needs to be based on verified information on developments of different kinds of peatland use. A joint project (possibly GPI funded) is proposed in which experts (e.g. from IPS and IMCG) will present their vision on mid- to long-term developments (10, 20, 50 years) in the different sectors. Such project would provide an important database for wise use implementation.

Tomasz Brandyk expresses support for this idea, referring to the 2002 symposium in Bremen.

Herbert Diemont is convinced that funding can be found for such a project.

There is general consensus on the matter. The character of the overview should not be too formal as

a lot of the content will be guesswork. IMCG-EC will prepare a framework to be complemented by IPS.

The meeting further agreed to strive for an annual IPS/IMCG meeting. For 2003 the meeting will take place in association with the IPS General Assembly meeting in Amsterdam (November).

A draft Memorandum of Understanding (MOU) between IMCG and IPS, proposed by IPS, had already been distributed before the meeting. Gerry Hood explained that the rationale behind the MOU is to provide continuity in cooperation also after personal changes within the organisations. Gerfried Caspers and Susann Warnecke pointed at the benefits for promotion of IPS and IMCG. John Couwenberg raised the issue whether the process of drawing up a MOU would not be harmful for the relationship between the two organisations. The promotional benefit can also be had from reporting on concrete joint meetings and action.

Stuart Brooks mentions that IMCG first needs to develop its own corporate identity. A MOU may be detrimental (not in content but in form) to IMCG in that it „loses” some of its own identity towards its membership as well as towards the outside.

Jack Rieley concludes that for the time being a MOU seems off the table. Any future efforts should consider making any MOU limited in time. Also one might consider something more in the direction of a joint working plan.

With respect to Information exchange and cooperation in ongoing projects Hans Joosten explained that there are fundamental differences between IMCG and IPS in approaches with respect to terminology.

The approach of IPS is to take existing terms and identify a „preferred use” for each term, i.e. to (re)define them in a consistent way. IMCG has come to the conclusion that –for exact, scientific communication - the existing confusion in terms cannot be solved by a „preferred” definition because No communis opinio will be found between disciplines, individual people, countries etc. on existing terms because of semantic, etymologic, and historical reasons

The whole literature will still be filled with the same terms with different meaning.

Therefore IMCG (Ron Hofstetter) has developed a new set of terms with an exact meaning: the Universal Mire Lexicon (UML). This UML will be published in the IMCG European Mires Book (2003) and it will be tried to express all local/national terms in UML terms to illustrate the correspondences and differences between existing terms.

Because of these different approaches no cooperation possibilities are envisaged.

With respect to the IPS dictionary (CD), aiming at a translation between various languages: This project is parked for the moment because of lack of financial resources.

Joachim Blankenburg, the IPS terminology coordinator, will be contacted to provide up-to-date information on the terminology work within IPS.

With respect to Mire classification, Global peatland database, Trends and changes in mires and peatlands, and Criteria for conservation, it was agreed, that both organisations inform each other on status and progress before the end of January 2003.

Under Other business Faizal Parish presented an overview of the progress of the peatland – carbon project for which now funds (o.a. from GEF and GPI) are secured. He pointed at the difficulties of getting Ramsar aware of the relation between peatlands and climate change, illustrating the necessity of the project. Faizal mentioned the support for the project already given by IMCG and asks IPS for its involvement. Rieley sees possibilities to restoration expertise, to be brought in via a workshop.

As the International Peat Journal (IPJ) is not optimally functioning as a result of the vicious circle between insufficient good manuscripts and no impact

factor, an idea is to make a joint scientific journal with IPS and IMCG. IPS is open for discussing the idea that may include a change of name. IMCG expressed positive sentiments and sees the need for a journal that – next to experimental papers – also allows purely descriptive papers on mires and peatlands.

Jack Rieley will circulate a paper with ideas to start the discussion.

The Peatland Working Group (PWG) of the Ramsar STRP will be rolled up into a Coordinating Committee (CoCo) aimed at delivering the GGAP, after adoption of the GGAP. The Ramsar Bureau may very soon contact the organisations involved in the PWG. There is still a lot of speculation on what is going to happen. IMCG has already discussed the option and identified a CoCo responsible person (Stuart Brooks). IPS will soon do so.

The Global Peatland Initiative - the side event in short

by Marcel Silvius

A GPI Side Event took place at the Ramsar CoP8 on 20 November 2002. This lunchtime event was well-attended, with approximately 100 participants. The event was chaired by Gerry Hood, President of the International Peat Society (IPS).

The event started with an overview of the biodiversity of peatlands which occur on all continents, emphasising the high degree of diversity in habitat types. Along with the values, the threats to the peatlands were also discussed. Examples of GPI projects were presented from the Andes (South America), Eastern Europe and Russia, Central Kalimantan (Indonesia), and Southern Africa. In addition, the GPI itself was presented as a useful implementing mechanism for Ramsar's Guidance for Global Action on Peatlands (GGAP).

The book „Wise Use of Mires and Peatlands” was presented. It is the result of many years of discussions and collaboration between the International Mire Conservation Group (IMCG) and the International Peat Society (IPS). It informs people on the values of

mires and peatlands and provides them with a decision-making framework for their „Wise Use“.

Speakers at this side event were:

Hans Joosten (Secretary General IMCG) - The biodiversity and current status of global peatlands
Donal Clarke (Chair of Commission II of the IPS) - Wise Use Guidelines

Tatiana Minaeva (Wetlands International Russia Programme) - Peatlands of Russia

Jack Rieley (Nottingham University, UK) - Peat Forests in SE Asia

Robert Hofstede (Grupo Paramo, Ecuador) - Peatlands and páramos in the Andes, Latin America
Jan Sliva (Technical University München, Germany) - Peatlands in Africa

Marcel Silvius (Wetlands International) - The Global Peatland Initiative

See also: <www.wetlands.org/news&/NewsItems/GPI_COP8.htm>

A new GPI leaflet can be found under: <www.wetlands.org/projects/GPI/GlobalPDF.pdf>

REGISTER

Please fill out the IMCG registration form.

Surf to <http://www.imcg.net> or contact the secretariat.

Wise Use Statement

The Statement on the Wise Use of Mires and Peatlands, a summary of the Wise Use Guidelines, was published as an eight-panel brochure in August 2002, and distributed for the first time at the IPS Pärnu symposium in September. The project was financed by the Global Peatland Initiative (GPI), that also provided additional funding for printing copies in Spanish, French, and Russian. These were

distributed at Ramsar COP8 in Valencia in November. In the meantime the statement has also been translated in Finnish and German. The statements in the various languages are or will soon be posted on the websites of IMCG (www.imcg.net) and IPS (www.peatociety.fi/peatlnd/peatland.htm). If you are interested in a hard copy, please contact the IMCG secretariat: info@imcg.net

Wise Use book published!

The new book on “The Wise Use of Mires and Peatlands - Background and Principles including a Framework for Decision-making” is the result of ground-breaking dialogue between peat extractors and the environmental protection movement. The book, which has just been launched, suggests a framework within which conflicts over the use of peatlands can be resolved.

In the second half of the 20th century the growing demands for energy, agriculture, horticulture and forestry led to a rapid increase in the commercial use of mires and peatlands. In the same period an increasing awareness of their environmental, ecological, aesthetic, and scientific value led to demands for the cessation or reduction of this commercial use. In order to deal with the resulting controversies the International Peat Society (representing those responsible for commercial uses) and the International Mire Conservation Group (representing those advocating conservation) met in the late 1990s to see if there was an alternative to confrontation.

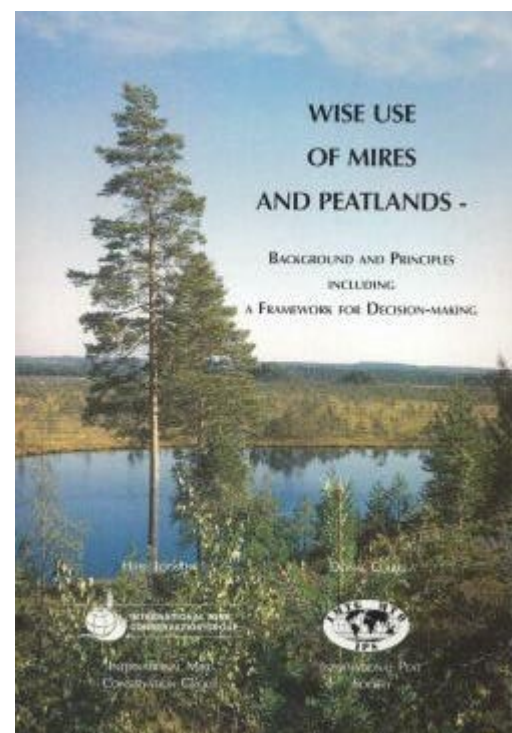
They agreed to co-operate in developing guidelines for the "Wise Use" of mires and peatlands, and the result, after three years of consultations and meetings, is this book.

The book is based on specialised input from some fifty experts and its compiling was supervised by joint meetings of the IMCG and IPS. The drafting and writing of the book was carried out by Hans Joosten of the IMCG and Donal Clarke of the IPS. Hans Joosten is an assistant professor in Greifswald University in Germany and secretary-general of the IMCG. Donal Clarke is Head of Corporate Affairs in Bord na Móna p.l.c. in Ireland and chairman of IPS Commission II: Industrial Utilisation of Peat and Peatlands.

“Wise Use” is a term taken from the documents of the Ramsar Convention on Wetlands. It is intended to convey the idea that there can be a reasonable approach to choosing between using peatlands to meet people’s needs and conserving them for their scientific and ecological benefits. The term is defined in the book as those uses of mires and peatlands for

which reasonable people now and in the future will not attribute blame.

There are peatlands in virtually every climatic zone, on all continents. There are many different types, which are hugely interesting and useful. They play a major role in wilderness and landscape, they hold substantial freshwater resources and they are important carbon sinks and stores of carbon. They are of interest to scientists for their biodiversity and as unique records of the past. In many areas they are under threat. The reason they are under threat is that the peat itself is valuable and useful. The peat can be used for forestry, for agriculture, for the generation of electricity, as a growing medium in the horticulture industry and in pollution control. Virtually all uses of peat require that the peatland be drained, and once drained, the peatland ceases to exist as a functioning mire ecosystem.



The book indicates that the loss of mires as a result of human activity has been due to:

Agriculture	50%
Forestry	30%
Peat extraction	10%
Housing, roads infrastructure	5%
Flooding, reservoirs	3%
Indirect losses (erosion, other)	1%
Total	100%

Both as virgin mires and as peat, peatlands have a wide range of functions unimagined by most people. As well as setting out a framework for avoiding or resolving conflicts the book contains a great deal of information. Two chapters are a virtual "everything you ever wanted to know about" peatlands and peat.

The book:

- Provides information on what mires and peatlands are, and on the wide variety of functions which peatlands and peat perform;
- Analyses why people value peatlands and peat;
- Seeks to set out the nature of conflicts and specifically of conflicts over the uses of peatlands and peat; and finally
- Seeks to provide a framework within which such conflicts could be resolved.

The book is essential reading to all those who influence mire and peatland management; public sector officials, land-use planning officers, environmental licensing bodies, heritage agencies, grant authorities, environmental protection groups and commercial companies.

"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."

The framework set out in the book involves two stages of a rational decision-making process:

Decision in principle: any proposed development of a mire or peatland can first be judged against a series of questions (a '*decision tree*') which establishes the effects of the proposed development.

Implementation decisions: if the reaction to the proposed development is then positive the proposal can be considered against a set of *guidance principles* (subject to *modification* depending on time and place) and can be examined in the light of whether a number of *instruments* will be used in relation to the proposed development.

The framework assumes that it will be used reasonably by people respectful of other peoples' points of view.

"The Wise Use of Mires and Peatlands – Background and Principles including a Framework for Decision-making" ISBN 951-97744-8-3, 304 pages, paperback, col photos, figs, tabs.

is available from NHBS at www.nhbs.com

Order Code: #136158W

Price is EUR 30 plus postage and packing

IMCG members can order the book for EUR 20 plus postage and packing via Philippe Julve: philippe.julve@wanadoo.fr

For members from countries with currency problems special arrangements are made. Please contact Tatiana Minaeva: tminaeva@wwf.ru

IMCG Executive Committee elections

In the previous Newsletter we could already report you the results of the IMCG Executive Committee elections, as the majorities were obvious and the outcome clear. Since then the voting procedure has been finished and we can give you the following final results:

The maximum number of votes to be cast was 13 (13 Main Board members).

For the position of chairman, 10 votes were cast: 8 for Jan Sliva, 1 for Olivia Bragg, 1 for Stuart Brooks.

For the position of Secretary-General 9 votes were cast: all for Hans Joosten.

For the position of Treasurer 7 votes were cast; all for Philippe Julve.

For the two Additional members, altogether 23 votes were cast. 11 for Tatiana Minaeva, 6 for Stuart Brooks, 3 for Olivia Bragg, and 3 for Piet-Louis Grundling.

We thank Asbjørn Moen for technical organisation of the elections.



Cooptation of Main Board members

The Main Board has – with again technical support of Asbjørn – also completed the (lengthy) procedure for the co-optation of two additional Main Board members, Jenny Whinam and Tapio Lindholm. Congratulation Jenny and Tapio, welcome in the Main Board (but remember: noblesse oblige!). Jenny and Tapio present themselves below.

Dr Jennie Whinam, Tasmania, Australia

My interest in peatlands started when I was an undergraduate student at the Australian National University in Canberra, where Dr Geoff Hope introduced me to the delights of peatland ecology. I was able to pursue these interests further when I moved to Tasmania, where the bulk of Australian Sphagnum peatlands occur and where there are large buttongrass moorlands dominated by the Cyperaceous tussock *Gymnoschoenus sphaerocephalus*. My post-graduate work at the University of Tasmania continued the peatland theme, with my Honours project being on string bogs and my PhD thesis on the ecology of Tasmanian Sphagnum peatlands.

For the past 12 years I have been Botanist for the Tasmanian Wilderness World Heritage Area, where the bulk of Tasmanian peatlands occur. The primary focus of my work has been the conservation of plant communities and assessing environmental threats. My primary interests in peatlands are their ecology and conservation, including palaeoecology, particularly Sphagnum peatlands. I have also been involved in assessing the impacts of Sphagnum moss harvesting and peat mining, both resources used by the horticultural industry. I have recently undertaken conservation and reservation assessments of Sphagnum peatlands in south-eastern Australia and been the co-ordinator of an overview of Australasian Sphagnum peatlands. I have also undertaken research into sub-Antarctic peatlands, including the pool complexes of Heard Island and Sphagnum moss beds of Macquarie Island.

Line Rochefort invited me to participate in the Wetlands 2000 Event in Quebec, which was my first foray into international peatlands. I attended the IMCG symposium in France this year, and enjoyed the opportunity to meet so many peatland experts out in the field, looking at various types of peatlands and discussing the problems of managing and conserving them.

I look forward to being a member of the IMCG Board and contributing where I can to the conservation of these fascinating and important ecosystems.

Tapio Lindholm (Finland)

I was born 5th January 1953 (two months before Stalin's death), and my nationality is Finnish in spite of a Swedish family name. I am married, and I have three children. I studied biology and geography, especially land use planning, in the University of Helsinki. My main subject was botany with a wide scope of classical floristics, plant geography and vegetation classification according the Finnish site type school. Scientific interest in thesis more ecological to study the reactions of mire plants to their environment. My doctor's dissertation dealt with the ecology and growth of *Sphagnum fuscum* and dwarf shrubs in ombrotrophic conditions.

I have also studied the impact of prescribed burning in forestry and started the study of old growth forest in Finland in late 1980s, which later lead to my role to develop the methodology of old growth inventories in Finland and to organise them. As a result, Finnish old growth forest reserves have also rather good pristine mires, especially in Northern Finland. Later I have devoted my time to the developing of ecological restoration in managed forests and on mires drained for forestry.

My time has always been divided between four dimensions: Scientific research, ecological education, nature conservation in NGO's and in administration, and as an editor and writer. I have made scientific work in the University of Helsinki and in Finnish Environment Institute, education mainly in Helsinki University and nature conservation activities in Nature League, when I was young. Later I worked in Finnish Nature Conservation Association (FNCA) and finally under the Ministry of Environment of Finland. I have been editor-in-chief of Nature Leagues "Nuorten Luonto" (Youth's Nature), in the journal Suo – Mires and Peat, and FNCA's magazine "Suomen Luonto" (Finnish Nature).

During the last years I have devoted a great deal of my time in nature conservation activities in North-West Russia on the basis of an agreement between Finland and Russia. I hope that I can promote mire conservation also in Russia. At the moment I am also expert chief of the Finnish part of the official Finnish-Russian nature conservation group.

In IMCG I am interested on all kind of protection of mires and their ecological studies. My favourite region of interest is the Boreal zone.

A new (actually old) book (re)published: C.A. Weber and the Raised Bog of Augstumal

“One hundred years have passed since the publication of C.A. Weber's (1902) seminal work on the vegetation and the development of the Augstumal raised bog. Yet even today this work retains its importance for understanding the main trends in peatland ecology of the 20th century.

Weber's monograph was widely influential Europe, but because of its limited distribution many knew of its contents only from scholarly reviews. Reading this superb new translation may therefore be both an exhilarating and humbling experience for many ecologists.”

Paul Glaser, Minneapolis

“Reading a translation of the book, we were amazed at the many facets of research conducted 100 years ago and how up to date much of it still is. ... This has to some extent led to a loss of optimism in the contemporary development in scientific knowledge on mires. It is amazing how precisely our predecessors saw and analysed nature.”

Andrey Sirin & Tatiana Minayeva, Moscow

“I should have said I am finding it pretty interesting. W(eber) was way ahead of his time. I have myself rediscovered several of his wheels.”

Richard S. (Dicky) Clymo, London

Contents

- Preface by *Hans Joosten*
- C.A. Weber's Benchmark Treatise on the Augstumal Raised Bog by *Paul Glaser*
- The Role of C.A. Weber in the Development of Russian Mire Science by *Andrey Sirin & Tatiana Minayeva*
- Studies on the Nemunas Delta and the Augstumalmoor in the 20th Century by *Rimvydas Kunskas*
- C.A. Weber - A Life in Science by *Jürgen Schwaar* translated by *Hans Joosten*
- Curriculum Vitae of C.A. Weber by *C.A. Weber*
- Translator's Note by *John Couwenberg*
- On the Vegetation and Development of the Raised Bog of Augstumal in the Memeldelta including comparative views on other raised bogs of the

World. A biological- historical and geological study by Dr. *C.A. Weber* (translation by *John Couwenberg*)

- Appendix 1: Geographic names and their modern equivalents
- Appendix 2: Common English plant names with German and Latin equivalents
- Appendix 3: Latin names with modern equivalents

The hardcover book can be ordered for a price of 20 Euros for IMCG members (30 Euros for non-members) from Philippe Julve: philippe.julve@wanadoo.fr

For members from countries with currency problems special arrangements are made. Please contact Tatiana Minaeva: tminaeva@wwf.ru

Couwenberg, John & Joosten, Hans (eds.): C.A. Weber and the Raised Bog of Augstumal - with a translation of the 1902 monograph by Weber on the “Vegetation and Development of Raised Bog of Augstumal in the Memel delta” 278 pp., 31 figs, 1 col. plate, 2 b&w plates. International Mire Conservation Group PPE (Publishing and Printing Enterprise) Grif & K Tula, Russia. ISBN 5-8125-0232-3



Carl Albert Weber

13. Jan. 1856 - 11 Sept. 1931

The Augstumalmoor Symposium and the Zelau meeting

In 2002 it was 100 years ago that the impressive book of C.A. Weber (1902) "Über die Vegetation und Entstehung des Hochmoors von Augstumal im Memeldelta" was published in Berlin. In this classical book many fundamental aspects of mires and peatlands were described for the first time. With the book, Weber has influenced the worldwide development of peatland science in the 20th century fundamentally. The original work is still being cited regularly, but has in fact – because of its limited distribution – only been read by very few mire friends and scientists. The centennial anniversary was the incentive to translate the work into English, a job superbly done – I may say that, I am not John – by John Couwenberg with support of Dicky Clymo.

The anniversary was also used by the IMCG, the German Peat Society DGMT, the Botanical Institute Vilnius, and the Nemunas Delta Regional park to organize a symposium that took place from 2-6 October 2002 in Juknaičiai (Lithuania). In the meeting some 30 people from 5 nations participated. The Augstumalmoor is currently in a similar situation as Weber had found it a century ago. Weber's work took place in the framework of a large preparatory investigation aimed at the agricultural reclamation of the peatland. Weber regretted the loss (he had been one of the first to plea for the conservation of virgin mires), but could understand its necessity. Since 1993 the peatland is part of the almost 24.000 ha large Ramsar site Nemunas Delta. Its eastern part has already been subject to peat extraction for 120 years, in recent years especially for slightly humified Sphagnum peat. As the resources are rapidly vanishing, an expansion of extraction into the western part is being considered. This would, however, irreversibly destroy the last parts of this locus classicus of modern peatland research and one of the fine examples of plateau bogs, a bog type that has become very rare in Europe.

After an introduction on landscape and peatlands of the Nemunas Delta on the evening of October 2nd, the two following days were filled with a variety of papers on Weber, the Augstumalmoor, peat extraction, mire conservation, and mire restoration. In the afternoon of October 4th we visited the Augstumalmoor and were impressed by the good condition in which the western part could still be found. A comparison between the descriptions of Weber and the present day situation confirmed that the western part is still a nicely growing, almost natural bog. In a resolution drawn up by the participants (see below) the conservation relevance of the site was expressed.

For more information: Hans Joosten: Joosten@uni-greifswald.de

Augstumal saved?

by Bettina Holsten

After sending a mail to the German peat company that is exploiting parts of the Augstumal raised bog in Lithuania, asking for their further plans concerning the bog, the following information was given during a phonecall:

The Klasmann-Deilmann Company does not have any plans to apply for a new exploitation permission for the remaining parts of the Augstumal bog. There are only plans for recultivating the existing peat extraction area according to plans that are going to be developed by Lithuanian scientists by order of the company. According to the information, the company is only requesting a permission to integrate a buffer zone of the remaining bog area into their recultivation concept, but no further peat extraction is planned.

No information was given on the aims of the recultivation and it remains unclear why the company wants to have a permission for using parts of the Augstumal protected area for creating a buffer zone, when there are no plans existing for the recultivation concept now. But as the company assured a serious interest in the protection of the bog, it can be expected that effective steps will be taken to prevent further water losses due to drainage.

According to these information there seems to be hope that the Augstumal raised bog will be protected for the future.

After having studied several other peatlands in Lithuania, the group moved to the Russian enclave Kaliningrad on invitation of Maxim Napreenko. There we visited two other classical peatland sites, the Grosse Moosbruch, that together with its surroundings of mires, lakes and forests had been the largest (100.000 ha large) conservation area of the German Reich before World War II. Considerable areas of the mire had been burning in 2001.

Also the second mire, the Zelau, the classic site of Gams & Ruoff (1929) had been burning in the dry summer of 2002. The Zelau had been a nature conservation site from 1910 up to 1944, but is currently not protected. The possibilities to protect the site were discussed in Kaliningrad on the 7th of October in a conference in the Natural History Museum of Kaliningrad, in which the day before an exhibition on the Zelau bog had been opened. The conference with representatives of the local and regional administration, the Baltic Fleet, and conservationists adopted the resolution below.

For more information: Maxim Napreenko: icid0988@email.albertina.ru

Resolution of the Participants of the Conference
“Between conservation and exploitation: C.A. Weber and the Augstumalmoor”
(Juknaičiai (Lithuania) 2-6 October 2002)

In the first week of October 2002, the Deutsche Gesellschaft für Moor- und Torfkunde (DGMT), the International Mire Conservation Group (IMCG), the Nemunas Delta Regional Park, and the Botanical Institute of Vilnius organised an international symposium on the occasion of the centennial anniversary of the publication of C.A. Weber's classical monograph on the Aukštumala Raised Bog. Weber's 1902 work on the Aukštumala Raised Bog comprised the first integrated study in peatland ecology worldwide.

An English translation of this benchmark treatise and foundation for modern peatland research was published and presented to the public at the symposium. During the symposium excursion an international delegation of peatland experts visited the raised bog of Aukštumala eager to see how this locus classicus of many peatland phenomena has survived the past 100 years.

The participants were indeed delighted to find the western part of the Aukštumala Raised Bog in a good, peat accumulating state and to note that many of the phenomena that Weber first described 100 years ago are still manifest. Such phenomena include – amongst others – the conspicuous bog plateau, the pools and hummock-hollow complexes, and the typical crooked forms of pine trees. Furthermore, the stratigraphy – and therewith the palaeo-ecological archives – of this part of the bog are still intact. It was also recognised that surficial drainage locally has had a negative impact. Measures to neutralise this impact are, however, simple and cost effective. Therefore, the western part of the Aukštumala Raised Bog can and should be conserved as a type-site of the plateau bogs of Europe with an international heritage value.

The participants recognize the socio-economic importance of the Aukštumala peatland for the local community. Any further use of this peatland should optimise the balance between economic revenues and environmental requirements conform the IPS/IMCG Wise Use approach. The long-term social and economic benefits derived from the Aukštumala peatland in its natural state can be more important for the region than the direct use of its peat resources.

The following could enhance the preservation of the Aukštumala Raised Bog:

- The wide distribution to all stakeholders of information about the site and its natural functions in order to raise awareness about its high value. For that purpose, the facilities available in the Nemunos Deltos Regional Park are to be used more actively
 - The establishment of an appropriate conservation regime within the regional park territory, including the institution of such a legal status for the Aukštumala Raised Bog, that any destructive exploitation – also under the temporary pressure of regional economic circumstances – will be avoided
 - The juridical and technical establishment of such conditions in the neighbouring exploited peatland area, that an optimal hydrology, geochemistry, and serenity in the unexploited western part of the bog can be maintained and restored
 - The elaboration and endorsement of a management plan for the Nemunos Deltos Ramsar site, integrated in the regional development plan, and the accomplishment of a legal and financial mechanism for its implementation with involvement of available international funds.
-

**Resolution of the Participants of the Round Table
on the Protection of the Natural Complex Mire Zelau**
(7th October 2002, Kaliningrad)

The unique natural bog ecosystem Zelau located on the territory of Kaliningrad Oblast is of high scientific and cultural value not only for our region, but also for Europe as a whole. The natural complex Zelau has formed over 10,000 years and remained until now in almost virgin condition. Having no analogies in Europe, the mire's uniqueness is due to high landscape and biological diversity, including a large bog with surrounding primary forests of different types and meadows.

The given natural object is located on land owned by the Defence Ministry. The land is used as a Military Area by the land units of the Baltic Navy and the Military Forestry 'Gvardeysky'. There are oil exploitation activities by the open limited-liability company 'Lukoil-Kaliningradmorneft' on the territory of the complex.

Since the natural complex Zelau was managed as a Military Area, it was protected over a long time. However, there are a number of problems related to the activities of the named land and resource users as well as to uncontrolled access of the local population to the site nowadays.

The participants of the Round Table:

1. Acknowledge the social, cultural and scientific value of the bog ecosystem Zelau, its importance for the ecological balance and sustainable development of the region, its dimension as Natural Heritage on a Federal and European scale and the necessity of its protection;
2. Consider adequate protection of the natural complex possible only by means of designating a protected area (complex landscape zakaznik), the mire itself forming the core area with surrounding forest and meadow communities;
3. Suggest the Oblast administration the creation of a working group within one month including all interested groups for the preparation of a project on the protection of the Natural complex Zelau until 2010; as decided by the Round Table, the NGO 'Ecocenter Rominta' will prepare suggestions on the composition of the working group and co-ordinate the activities of all sides before the establishment of the group;
4. Calls all land and resource users to immediately strengthen their efforts towards implementation and control of nature protection legislation on the territory of the mire and surrounding areas under their mandate.

President of the Round Table
Secretary of the Round Table

Napreyenko M.G.
Sokolov A.A.

IMCG Resolutions adopted in Besançon, France

During the 10th IMCG biennial meeting in Besançon France, a total of 10 IMCG resolutions was adopted (see minutes General Assembly, elsewhere in this Newsletter). In the previous Newsletter 5 of these

were published. Below you may find the final 5 resolutions as they have been sent out. The resolutions will also be put on the IMCG website.

IMCG Resolution for the European Union

The International Mire Conservation Group (IMCG) is a worldwide organisation of mire (peatland) specialists who have a particular interest in the conservation of peatland habitats. The IMCG willingly places its advice and expertise at the disposal of any government seeking to establish or maintain mire conservation programmes.

The IMCG held its 10th biennial General Assembly in Besançon, France, in July 2002. At that Congress the following resolution was adopted with respect to the current situation for mire conservation in Europe.

1. The current working lists of priority habitats and species for protection under the European Habitats Directive do not sufficiently represent the diversity of European mire habitats and species. For example, it emerged during our 2002 field symposium in France that important calcareous fen types are not included, and we note that similar problems are reported from Austria and other countries of western Europe. Moreover, the deficiencies of the lists will increase as new countries in different biogeographical regions undertake the EU accession process. Therefore, we recommend that there should be a comprehensive revision of the lists of mire habitats and species so that they will be applicable throughout the new expanded area of the European Union. The IMCG has mire specialists from the EU accession countries, and invites dialogue with the EU on this matter, through the existing EHF channel or by an alternative direct route.
2. We are also concerned that many EU-LIFE projects on mires focus on active management but do not set any requirements for establishing a prior understanding of ecological processes and the full nature of the problems to be addressed. Thus, inappropriate work programmes have been undertaken and projects have consequently failed to achieve their restoration objectives. In order to reduce such wasteful application of resources, we recommend that the award of LIFE support for management that will substantially affect ecosystem functions should be made conditional on the successful completion of a preliminary phase of site study and collection of baseline data with separate funding; and on the submission of specific plans for medium-term monitoring and evaluation of results. Ideally, there would be input from independent experts in establishing the requirements for each pilot study, and these would take into account considerations of ecosystem function, stakeholder issues and practical feasibility. Again, the IMCG invites dialogue with the appropriate authorities towards establishing the principles of such staged approaches and realistic target-setting for LIFE projects on mires.

IMCG Resolution for Finland

The International Mire Conservation Group (IMCG) is a worldwide organisation of mire (peatland) specialists who have a particular interest in the conservation of peatland habitats. The IMCG willingly places its advice and expertise at the disposal of any government seeking to establish or maintain mire conservation programmes.

The IMCG held its 10th biennial General Assembly in Besançon, France, in July 2002. At that Assembly the following resolution was adopted with respect to the current provision for mire education and research in Finland.

Within Europe, Finland has a special importance with respect to the extent and quality of its peatlands, and in particular of its undisturbed, living mires. Finland is also known and respected throughout the world for the high quality of its research and education of students in mire ecology. In view of these facts, the IMCG is dismayed to learn that the almost 10 university chairs that were previously occupied by mire ecologists have now all been re-filled by specialists in other disciplines, and that mires have almost ceased to feature in the curricula offered by the country's universities. As a result of these changes, Finland may very soon have no mire scientists and teachers, and no specialists able to make nature inventories for mires.

Accordingly, the IMCG urges the Finnish Ministry of Education and the Academy of Finland to critically re-examine the balance of disciplines that are represented within its universities. Furthermore, the IMCG asks that these bodies should give urgent attention to possibilities for reinstating educational opportunities and research funding in mire ecology to a level that is consistent with the importance of Finland's mire resource, at both national and international scales.

IMCG Resolution for the Russian Federation

The International Mire Conservation Group (IMCG) is a worldwide organisation of mire (peatland) specialists who have a particular interest in the conservation of peatland habitats. The IMCG willingly places its advice and expertise at the disposal of any government seeking to establish or maintain mire conservation programmes.

The IMCG held its 10th biennial General Assembly in Besancon, France, in July 2002. At that Assembly the following resolution was adopted with respect to the current provision for wise use of mires in Russia.

The IMCG recognises the essential contributions of Russia to advancing our knowledge of mires, in progressing mire conservation, and in initiating the wise use approach for peatlands. We welcome the progress that has been made in recent years towards wise use of Russian mires, towards establishing the dialogue between stakeholders from different economic sectors, in the regulation of federal legislation, and in the public awareness campaign that aims to establish a common understanding of the benefits and functions of mires. We also commend the increasing activity of non-governmental organisations in supporting mire protection and introducing mire restoration practices.

However, IMCG notes the following problems related to the protection of mires that require the urgent attention of both the government of the Russian Federation and the international community:

1. We note that Russian mires are threatened by economic activities which are potentially connected to foreign markets; principally peat cutting in the Baltic Region, and oil and gas mining in highly paludified areas of West Siberia and the north-east of European Russia. A valuable contribution to establishing mire-friendly economies in these regions might be achieved by installing ecological impact assessment procedures that are independent of the large companies; and by introducing ecological certification procedures for peat-based products and the products of the oil and gas industries.
2. Although Russia has the world's largest national resource of peatlands, these are now rare and endangered habitats in the forest-steppe provinces of the European part of Russia and in West Siberia. In highly populated areas, river valley fens are close to extinction. One of the key biodiversity and nature conservation issues is that special support is needed for landscape planning, ecosystem management and mire restoration in these regions.
3. The international reputation of Russian mire science is legendary, and we note with concern the recent decline of activity in this field. Thus, the IMCG urges re-establishment of the all-Russian network of multidisciplinary professionals and stakeholders in mire issues.
4. Public awareness of the special values and functions of mires is generally low in Russia, and this restricts possibilities for people to benefit fully from this natural resource. The IMCG would welcome new initiatives in mire education and in dissemination of information to all interested parties.
5. The impact of Russian mires on global processes is under-estimated. We confirm the urgent need to obtain fundamental knowledge about the natural functions of Russian mires and their dynamics under different climate change scenarios.



IMCG Resolution for Hungary

The International Mire Conservation Group (IMCG) is a worldwide organisation of mire (peatland) specialists who have a particular interest in the conservation of peatland habitats. The IMCG willingly places its advice and expertise at the disposal of any government seeking to establish or maintain mire conservation programmes.

The 10th biennial General Assembly of the IMCG was held in Besançon, France, in July 2002. The Assembly adopted the following resolution to express the concerns of the IMCG with regard to the protection of mires in Hungary.

In the past, more than 1% of the territory of Hungary was covered by mires. This is a substantial area considering the climatic conditions of the Carpathian basin. The extensive Hungarian mire systems, for example Ecsedi lap and Hanság, were lost during water regulation works in the 19th and 20th centuries. Now, more than 97% of Hungary's mires have been drained so that protection of the remnants is of the highest importance to the biological diversity and natural heritage of Hungary, as well as at international scale.

In view of this, the IMCG is pleased to learn that the Hungarian government has provided legal protection for wetlands, mires and their remnants within the national ecological network; and that the protection process takes into account the whole of each mire complex, together with a buffer zone. The Hungarian practice of updating the national mire inventory every year is exemplary.

We are also encouraged to hear of Hungary's achievements in preventing further destructive activities (e.g. drainage and industrial mining) on some mires; in initiating mire restoration schemes; in establishing the principle that land use and development planning procedures should take some account of the national and Natura 2000 mire networks; towards developing a national strategy for the conservation of mires; and towards incorporating principles of „wetland wise use” in national policies such as the proposed National Environment Programme.

However, IMCG asks the Hungarian government to renew efforts towards establishing the local agreements and partnerships with land users that will enable the Natura 2000 mire network to be completed. In particular, the introduction of a scheme to provide reasonable compensation and other financial incentives to land owners and users is recommended.

IMCG also suggests that there should be a management plan for every protected mire, and that this should be revised regularly. Prospects for bringing Hungary's valuable mires to favourable conservation status would be greatly enhanced by establishing a national monitoring system; by conducting research on mires and peatlands (particularly research for nature conservation); by introducing education programmes to establish study paths related to mires; and by encouraging the collaboration of non-governmental organisations with state agencies in the management of peatlands.



Towards a Global Peat Campaign

by Richard Lindsay and Olivia Bragg

The UK Peat Campaign is now beginning to bear highly visible fruits from more than a decade of persistent work. But it is also becoming clear that the success of the Campaign in promoting peatland conservation in the UK could have significant and less positive results for some of the most valuable mires elsewhere. Thus, there are important and pressing implications for mire conservation in other countries, to which some of the nations represented at the IMCG symposium in France responded by declaring themselves ready to join a Global Peat Campaign. It is incumbent on the UK to offer assistance to the countries affected.

Since the Peat Campaign began, there have been a number of far-reaching changes to the way in which peat is used in the UK:

- The UK Government has set a target for the UK of 90% peat replacement within commercial horticulture and the retail trade by 2010.
- B&Q (the largest retail supplier of horticultural products in Europe) has similarly set itself a target to become peat-free by 2010.
- Two other major UK retail suppliers have declared their intention to phase out peat from their product-ranges.
- The former UK Peat Producers' Association, representing the peat industry, has now acknowledged the need to move away from peat-based composts and has thus re-named itself the Growing Media Association.
- Scotts (the largest extractor of peat in the UK) has announced that it will cease extraction on its sites within 2 years.
- The EU Landfill Directive has set ambitious, legally binding targets for diverting biodegradable waste from landfill, and many UK companies are now developing successful alternatives to peat-based growing media from the resulting waste resource-stream.
- Demand from the public for non-peat composts in the retail market (65% of all growing media sold in the UK) currently far outstrips supply.

At a recent conference in Scunthorpe, northern England, the UK Environment Minister acknowledged that the demand for growing media continues to rise, so that the use of both peat and other growing media is increasing rather than decreasing. Nevertheless, he re-affirmed the UK Government's commitment to peat-free targets, and emphasised that these targets have three objectives: firstly to protect Britain's peatlands as habitats of European importance; secondly to help solve the country's waste management problems; and thirdly to ensure that the problem of peat extraction is not simply exported to other countries, as may be happening at present.

These developments were discussed during the IMCG Field Symposium in France. The meeting commended the achievements of the UK Peat Campaign and totally endorsed the views of the Environment Minister. But it also recognised that the IMCG itself has an important role to play in pursuing the last of the Minister's objectives; that is, in ensuring that the problem of peat extraction is not simply passed successively from one nation to another.

Local supply to the UK peat market is inevitably declining. It is to be hoped that it will be replaced by peat alternatives, but there is already evidence that the first response of the market is to search out new sources of peat for import. How can we help to discourage this tendency, which will almost inevitably increase the pressure on valuable mires in the last peat-producing countries nearby, including Ireland, Finland, Belarus, Estonia and Latvia; if not promote the already real danger that large-scale horticultural peat industries will become viable farther afield, for example in Russia, South Africa and Australia?

Surely, the experience of the UK Peat Campaign is now urgently relevant to mire conservation in these and any other countries that either use horticultural peat or have the means to contribute to the UK shortfall. This experience could be helpful not only in identifying and evaluating threats, but also, where appropriate, in planning and initiating peat campaigns based on the principles that:

- peatlands are valuable ecosystems which are under threat worldwide;
- commercial extraction is not a sustainable use in its present form and thus is not compatible with national obligations of sustainability and wise-use; and
- production of non-peat composts represents a means of both solving a waste-management problem and of exploiting a rapidly-expanding market opportunity.

Moreover, the approach could well be useful as a technique for combating other pressures on peatlands, such as the new emphasis of Russian energy policy on the use of peat as a domestic fuel in order to release oil and gas production to the export market.

As a result of these discussions, the IMCG Congress in Besançon adopted a resolution that congratulates the UK Environment Minister and those involved in the Peat Campaign on their views and achievements. But it also calls on the UK to make its experience available, in an instructive and readily usable form, to all nations wishing to establish peat campaigns tailored to their own situations.

It is now important that all countries represented within the IMCG should examine critically the effects of activities in the UK, as well as those of

other pressures, on their own peatlands; and that they should consider whether the peat campaign approach would be effective in combating any impacts or dangers that are identified. Thus, all members are encouraged to address these questions, and to make any appropriate government or non-government organisations aware of the issues. Until an

information pack appears, those who wish to benefit from the UK experience might usefully start with a search for „Peatlands Campaign Consortium” on the web-site of Friends of the Earth, lead organisation for the UK Campaign <www.foe.co.uk> and by e-mailing the Environment Minister, Mr Michael Meacher, at <massonm@parliament.uk>.

Rothenthurm: 15 years of constitutional mire conservation in Switzerland

by Ulrich Hans Graf

The legal requirements

15 years ago, on the 6th of December 1987, the Swiss people accepted an amendment to the constitution called the „Rothenthurm-Initiative“. From this date the Swiss Confederation is obliged according to its constitution to conserve the „mires and mire landscapes of national importance and particular beauty“. The paragraph is rather strict: the sites are to be conserved entirely. According to the federal conservation ordinances for bogs and fens, constructions, alterations of the surface shape, and change of the hydrology are no longer allowed, unless they serve the conservation of the mire concerned. The only exception are alterations relating to traditional agricultural use. Disturbed mires have to be restored at any occasion.

The referendum has been accepted against the government's recommendation, surprising the majority of politicians. Nevertheless the legal implementation of mire conservation is a serious one.

The mire inventories

The first step was to denominate the mire sites of national importance. This task is done by three inventories:

- The Federal inventory of bogs and transitional mires, implemented in 1991, which lists 520 sites with a total area of 1,470 ha.
- The Federal inventory of fens, implemented stepwise in the years 1994, 1996 and 1998, which includes 1,163 sites and a total area of 19,286 ha.
- The Federal inventory of mire landscapes, implemented in 1996 with 88 sites and a total area of 412,700 ha.

Realization of mire conservation

Concerning nature conservation actions, the Confederation delegates her competence to the cantonal governments, supporting them by advisory and financial means. A conservation ordinance has to be set up for every site, usually including maps describing the situation of the nature objects and the way to manage and to conserve them.

The conservation of bogs faced no greater problems, the sites being small and often not exploited or cultivated any more. At present, the ordinances are set up for about 80% of the bogs of national importance.

The conservation of fens turned out to be more difficult. Most of them have been used as pastures or litter meadows in a traditional way. The fens might develop to wet forests if the cultivation is abandoned. On the other hand, most of the fens can be transformed into productive meadows with little effort. Nowadays, there is little need for litter in the farms. It makes no sense to the farmer to cut the fens. Furthermore many farmers felt the decrees as an expropriation. Often they just didn't understand the restrictions because they always had aimed the best for their mires. So, many farmers resisted mire conservation until the governments started to pay subsidies for the traditional use of fens. The actual decrease of agricultural prices in the whole of Europe makes such additional incomes more attractive. So the protection of fens now progresses fairly well.

The conservation of mire landscapes in general doesn't affect the agriculture which is considered as a typical part of these sites. The problems concern mainly development projects for buildings and tourism. Building areas and tourist facilities cannot expand inside a mire landscape of national importance. In several cases, the conflicts were resolved by reducing the protected perimeter of the landscape concerned or even of mire biotopes. On the other hand, the population begins to appreciate the advantages of mire conservation: the Entlebuch valley has been declared an UNESCO Biosphere Reserve in 2001. This can be considered as a highlight in Swiss mire protection, the mire density in the Entlebuch being one of the most important in Switzerland. The excellent collaboration between federal and cantonal authorities made it possible to adapt hundreds of projects in favour of the conservation of a specific mire or mire landscape or to stop damaging projects.

Present developments in mire conservation

An evaluation of the effect of the mire conservation programme, which was started 5 years ago by the Swiss government, yields its first results.

About 100 restoration projects in disturbed mires have been completed or are being executed. A discussion about a national mire restoration programme is starting now. People engaged in mire

conservation were very pleased to see the army's opinion shift in favour of mire conservation: in some cases facilities such as bunkers or roads have been removed.

Mire conservation in Switzerland is on its way. But quite a lot of staying-power will be needed for it to be successful on the long-term.

Conservation of Arctic Flora and Fauna (CAFF) Flora Group (CFG) Cooperation between the IMCG and the CFG

by Stephen Talbot

Introduction

During the next few decades the Arctic will be strongly affected by many forces from within and outside the region, including global climate change, cumulative impacts of resource development, population increases, and tourism. The relatively simple and fragile ecosystems could be dramatically altered through changes to the vegetation, destruction of wetlands, and thawing of ice-rich permafrost. This could have important consequences to wildlife resources and to Native people within the Arctic, as well as feedbacks to the global hydrologic and atmospheric systems. Circumpolar cooperation of arctic botanists is essential to achieve a unified approach to conservation, protection, and sustainable use of arctic ecosystems and their resources.

The Program for the Conservation of Arctic Flora and Fauna (CAFF) was established to address the special needs of Arctic species and their habitats in the rapidly developing Arctic. CAFF forms a program of the Arctic Environmental Protection Strategy (AEPS) which was formally adopted by Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States through Ministerial Declaration at Rovaniemi, Finland in 1991. In 1996, AEPS was replaced by the Arctic Council. CAFF cooperates with several observers such as the World Wildlife Fund (WWF), World Conservation Union (IUCN), and United Nations Educational Program (UNEP).

The CAFF organizes its work through the establishment of expert subgroups. As one of the subgroups, the CAFF Flora Group (CFG) was established in 1999 to identify circumpolar flora conservation priorities and provide the CAFF Board with advice and recommendations for joint actions. Cooperation from all eight arctic countries avoids replication of effort and permits realistic assessment of the conservation requirements for arctic vegetation and flora. Toward this end, representatives of arctic

countries met at the First International Conservation of Arctic Flora and Fauna (CAFF) Flora Group Workshop from 27 – 29 March 2001 in Uppsala, Sweden where a dialogue on issues important to their shared arctic environments was begun. A report of the proceedings is available from the CAFF International Secretariat, Hafnarstraeti 97, 600 Akureyri, Iceland; e-mail <CAFF@ni.is>. It is also available in an electronic format <<http://www.caff.is/sidur/uploads/CAFFFloraGroupUppsalaReport1-sb.pdf>>.

Organization and Scope of the CFG

Our objectives are to: 1) seek international opportunities to support the conservation needs of the biodiversity of arctic flora and vegetation; 2) create conservation partnerships within the Arctic; 3) support research and education for conservation partnerships; 4) exchange published information and unpublished data concerning arctic flora and vegetation; and 5) develop cooperative botanical activities for the Conservation of Arctic Flora and Fauna annual work plan.

CFG meetings are open to botanical specialists of all governmental and non-governmental organizations with proven interest and expertise in the Arctic. The CFG complements global and other regional botanical committees of governmental and non-governmental organizations. The CFG is comprised of up to 16 representatives; i.e., up to two representatives from each of the eight Arctic Council member states and permanent participants. The representatives come from the range of organizations and geographical regions.

The term flora in the title „CAFF Flora Group” is broadly interpreted to include flora and vegetation. CFG distinguishes between the term flora, an enumeration and separate description of each of the various kinds of plants that grow in the Arctic, and vegetation, the mosaic of plant communities over the landscape. To delimit the Arctic we accept the

Panarctic Flora Project map (Figure 1; Elvebakk et al. 1999). In this definition of the Arctic, the polar tree line distinguishes the Arctic from the neighboring boreal zone, with the exception of the amph-Beringian sector where additional criteria are necessary to determine the status of some areas. However, the CFG recognizes the importance of adjacent areas. To be able to treat conservation issues broadly, CFG extends its geographical consideration, when necessary, to include boreal mountains neighboring the Arctic.

CFG projects include the:

- Atlas of Rare Endemic Vascular Plants of the Arctic. In this report 96 rare endemic species of the Arctic are identified including information on taxonomy, geographic distribution, habitat preferences, biological characteristics, estimates of endangerment, and citations of supporting literature (Talbot, S.S. et al. 1999. Atlas of rare endemic vascular plants of the Arctic. Conservation of Arctic Flora and Fauna Technical Report No. 3. U.S. Fish and Wildlife Service, Anchorage, AK. Iv + 73 pp.)
- *Circumpolar Arctic Vegetation Map*: This 1:7.5 million-scale vegetation map of the Arctic region north of the treeline will be published as CAFF Map No. 1 in March 2003.
- *Panarctic Flora Project*. This parallel project aims to harmonize nomenclature and taxonomy of vascular plants in the circumpolar region as a basis for studying the biodiversity, origin and evolution of the Arctic flora. A checklist of Arctic plants will be completed in January 2003.
- *Cooperation between the CAFF Flora Group and Other Conservation Groups*. As stated in the CFG Charter, our goals are „To promote, encourage, and co-ordinate internationally the conservation of biodiversity of arctic flora and vegetation and their habitats and research activities in this field; and to enhance the exchange of information relating to arctic flora and vegetation and factors affecting them.” Although CFG brings a unique perspective by specializing on the botanical aspects of the circumpolar Arctic, there are other groups that share some of the CFG’s interests. At our Uppsala meeting we agreed to establish more effective communication with other organizations and parties. We particularly noted the valuable role that the International Mire Conservation Group (IMCG) serves in maintaining the diversity of mires and by conserving the full range of their natural functions and biodiversity; and by ensuring their wise and sustainable use. As the aims and the mission of the CFG and IMCG coincide to an important extent, we believe cooperation would benefit both organizations.

To begin the process of cooperation, Hans Joosten, IMCG Secretary General, suggested that the following steps be taken: 1) IMCG will make a link from its website to that of CAFF. In turn, CAFF is

exploring the possibility of doing the same to IMCG; 2) IMCG will inform the CFG Chairman of the appearance of new IMCG Newsletters; these will be forwarded by the CFG Chairman to CFG members; 3) IMCG will send the CAFF secretariat and the CAFF National Representatives hard copies of the IMCG Newsletters. These names and addresses will be provided to the IMCG Secretary General by the CFG Chairman; 4) write an article on the CAFF Flora Group for this IMCG Newsletter to inform IMCG readers about the CFG (including contact addresses); and 5) inform the Secretary General on all relevant meetings, reports etc. of the CFG, so that these can be included in the IMCG Newsletter and post them on our website. At a later stage we can see how we can work together on other issues of mutual concern, e.g. identifying unprotected wetland areas of importance in the Arctic, identifying rare arctic wetland vascular plants, participating in each others meetings, etc.

CFG 2003 Spring Meeting

Plans are underway for the CFG to hold a second international meeting in April 2003 (exact dates to be determined) in Helsinki, Finland. Preliminary agenda items the CAFF Flora Group will address are: 1) complete and distribute the Circumpolar Arctic Vegetation Map. Lead: US; 2) initiate a checklist of Arctic lichens and bryophytes as an essential first step to the assessment of rare taxa. Lead: Iceland; 3) complete the Panarctic Flora Checklist, and initiate a revised Atlas of Rare Vascular Plants of the Arctic, based on the checklist. Lead: Norway; 4) review the report on the monitoring of local flora (presence and abundance) in Russia, including evaluating its circumpolar application. Lead: US and Russia; 5) subject to funding, plan and host in Greenland a second International Workshop on the Classification of Arctic Vegetation. Lead: Greenland with assistance of US; 6) scope process and incorporate traditional knowledge pertaining to the use and conservation of arctic plants. Lead: US and Permanent Participants; and 7) discuss how cooperation may be fostered between the IMCG and the CFG.

The CFG looks forward to further cooperation between the IMCG and CFG.

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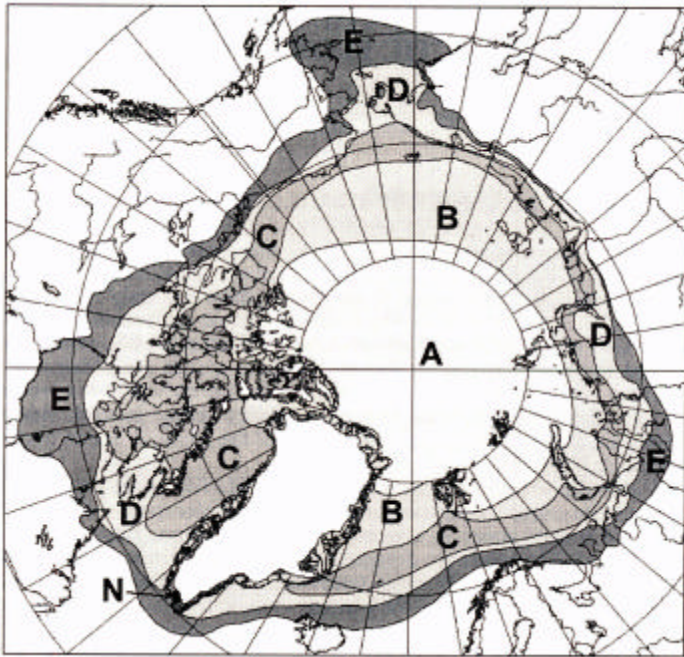


Figure 1. Zonal Subdivision of the Arctic. From the paper by A. Elvebakk, R. Elven, and V. Yu. Razzhivin. 1999.

Delimitation, Zonal and Sectorial Subdivision of the Arctic for the Panarctic Flora Project. In: Nordal, I. & V. Yu. Razzhivin (eds.). The species concept in the High North – a panarctic flora initiative. Det Norske Vitensk.-Akad. I. Mat.-Naturv. Kl., Skr. Ny Ser. 38: 375-386.

Zone A. Desert-like with widely scattered phanerogams, plant cover is mostly less than 5%.

Zone B. Prostrate shrubs such as *Dryas* and *Salix*, especially *S. arctica* and *S. polaris*; peat accumulation occurs and mires with *Carex* and *Eriophorum* species are present; plant cover is discontinuous.

Zone C. Zonal habitats dominated by the dwarf-shrub *Cassiope tetragona* and minerotrophic fens cover large areas; plant cover in zonal sites is closed.

Zone D. Zonal habitats dominated by dwarf shrubs of the genera *Betula*, *Empetrum*, *Salix*, and *Vaccinium*; oligotrophic peat development occurs in mires, which have a hummocky structure.

Zone E. Zonal habitats with shrubs (greater than 0.5 m) with common species of the genera *Salix*, *Alnus*, and *Betula*. In the amphi-Beringian area, tussock tundra dominates and on the Asian side it co-occurs with stlanic thickets of *Pinus pumila*.

Zone N. The map shows a small northern boreal birch forest (*Betula pubescens*) enclave in South Greenland.

Peat and forest fires in Indonesian rainforests release huge amounts of CO₂

Professor Jack Rieley of the School of Geography, University of Nottingham and Dr. Susan Page of the Department of Geography, University of Leicester announce a breakthrough article in the November 7 issue of the internationally renowned scientific journal *Nature*. Professor Rieley and Dr. Page, together with a team of European and Indonesian scientists present new insights into the effects of tropical forest fires on global climate. The scientists used a combination of satellite-based earth observations and intensive field data collection to estimate the amount of the greenhouse gas CO₂ released by fires in the forested and deforested peatlands of Indonesia.

This retrospective study evaluated the impact of the 1997/1998 El Niño driven fire disaster. During that time forest and peatland fires destroyed huge areas of rainforest in Southeast Asia, especially in Indonesia. It was the biggest fire catastrophe ever observed in that region. A noxious, yellow cloud of haze extending 3000 x 5000 kilometres covered the region for several months, affecting Indonesia, and neighbouring countries of Singapore, Malaysia, Brunei and Thailand. The economic damage resulting from the smoke alone was estimated to exceed two billion US dollars, closing airports, schools and offices and disrupting trade. The polluting 'haze' also had a serious impact on human health by increasing respiratory problems affecting, especially, the young and elderly.

For their studies, the scientists focused on tropical peat swamp forest, a largely unknown ecosystem that occurs on organic soil deposits that can exceed 12 metres in thickness. Owing to the high carbon content of this organic material, surface fires spread underground into the peat layer. These fires are characterised by incomplete burning and produce huge amounts of smoke, fine-particle 'haze' and chemical pollutants. Peat swamp forests represent approximately 40 per cent of the land area in Indonesia that burned during the 1997/1998 fires. The amount of carbon released during that time was the biggest ever detected and, at 0.81-2.57 Billion tonnes, corresponds to 13 to 40 percent of the annual global carbon production by burning fossil fuels, such as oil, coal and gas.

The work by Professor Rieley and Dr. Page and their colleagues highlights the fact that tropical peat stores huge amounts of carbon that will continue to be released to the atmosphere as carbon dioxide during future forest fires and land conversion from forest to agriculture. Carbon dioxide is known to play a major role in the global warming of the atmosphere of the earth. Recurrent fires have, therefore, the threatening potential of making a very significant contribution to climate change, particularly during El Niño weather events that, in Indonesia, lead to a reduction in precipitation and drought conditions during the extended dry season that results.

Professor Rieley and Dr. Page said: "The data presented in *Nature* for what happened in the 1997

disaster are very relevant at the present time because the peatlands of Indonesia have been burning again with great ferocity, generating more choking haze, during this year's extended dry season, caused by a weak El Niño. Once again these fires have been started by people for land clearance but also for sheer amusement and vandalism. The haze has been denser for longer periods than in 1997 and has had a worse effect upon human health. Palangka Raya airport was closed for almost two months and the economic and social life of Central Kalimantan Province came to a virtual standstill. Hospitals became full and many people left for elsewhere in Indonesia. The main source of the polluting haze are the fires inside the peat soil that smoulder for a long time after surface fires have extinguished and re-ignite in the slightest breeze causing further fires on the surface. The combination of drought and poor land management, in particular excessive logging and drainage of the peat swamps, have made this ecosystem very susceptible to fire, which will reoccur frequently in

the future unless drastic mitigation measure are undertaken".

Unless land use policies are changed to control land clearance by fire, then recurrent fires will lead to a complete loss of Borneo's peat swamp forests within a few decades with continued, high emissions of carbon dioxide to the atmosphere. The scientists are demanding intensive national and international efforts to avoid further fires in the tropical peat swamp forests and to promote environmentally sustainable management of this sensitive ecosystem. They ask politicians and international aid donors to act now.

The article can be viewed FREE online at:

http://www.nature.com/nlink/v420/n6911/full/nature01131_fs.html

Another article of interest:

Global-warming models should account for peat in forest fires.

<http://www.nature.com/nsu/021104/021104-11.html>

716,000 ha Siberian minerotrophic mires soon under protection

by Elena Lapshina and Franziska Tanneberger

The Global Peatlands Initiative (GPI) project 'Protection of minerotrophic mires of South Western Siberia' launched October 2001 has recently been completed. Minerotrophic mires of the temperate zone, one of the globally most threatened mire types, have largely been destroyed in most parts of the world. In South Western Siberia, large complexes of this mire type can still be found. To date no major mire protected areas have been established in this region, however. The main objectives of this ambitious project were

1. to identify and designate at least two new protected areas on the Great Vasyugan Mire (see Box below) and in the river Ob floodplains with future perspectives as Ramsar and World Heritage sites and
2. to coordinate and foster local, regional, and international partnerships of governmental and non-governmental organisations and agencies to implement such project.

The project was implemented by a working group consisting of scientists from Tomsk University (Institute of Biology and Biophysics) and administrators from Tomsk and Novosibirsk Oblast environmental authorities (Regional Committee for Environmental Protection and Nature Resource Use Tomsk Oblast, Department of Natural Resources Novosibirsk Oblast). Dr Elena Lapshina and Dr Natalya Semenova (both Tomsk University) appeared as project co-ordinator and project manager, respectively. Tomsk University is one of the leading institutions in mire science in the Russian Federation with a long experience also in nature conservation

projects. The project was funded by GPI with 25,000 Euro. Tomsk University cooperates closely with Wetlands International Russia Programme and several European universities and NGOs who supported the project.

As results of the project,

- official support of Tomsk and Novosibirsk governors for a cross-border federal protected area 'Vasyugan Mire' could be achieved. In both regions official decrees on the formation of working groups have been issued;
- 716,000 ha in the eastern part of the Vasyugan Mire have been suggested as protected area (landscape zakaznik), a scientific documentation and justification of the area has been elaborated;
- location and borders of the three parts of the proposed protected area (426,000 ha Tomsk Oblast and 290,000 ha Novosibirsk Oblast) have been agreed with land-users and administrators with respect to the future economic development of the region;
- a management plan for the new zakaznik has been elaborated;
- buffer zone borders and management guidelines have been identified;
- a proposal for a natural monument on the territory of the Ob valley mires (Northern part near Novo-Uspenko) has been prepared and is to be evaluated by the authorities soon.

Facing a number of difficulties related to border agreements with forest and hunting authorities in the

past months, only recently a final agreement on the exact location of the Vasyugan zakaznik could be achieved. Therefore, the designation process is not yet finished completely. All materials related to the nomination procedure have been reviewed by the administration of both Oblasts in autumn 2002 and the proposal was handed to Moscow for the final designation (federal level).

In the course of the project, local and regional print media have reported several times on mire protection issues. A workshop carried out in June 2002 in Tomsk with all relevant stake-holders strengthened local and regional efforts towards mire conservation and wise use in Western Siberia (see IMCG Newsletter 2002/2).

Box: The Great Vasyugan Mire

The largest part of Western Siberia is occupied by the Ob Irtysh Basin, a nearly level plain lying only little above sea level. Peatlands extend here over 800 km from north to south and up to 1800 km from east to west. 60% of all peat deposits of the former USSR and 40% of those of the whole earth are found in Western Siberia. In the last decades, these peatlands became more and more threatened by peat, oil and gas exploitation.

The Great Vasyugan watershed mire system in the southern part of this plain is the world largest contiguous peatland, making up for more than 1% of global mire area. It covers an area of more than 5 million ha, providing habitat for endangered brown moss and sedge communities. Vasyugan harbours large populations of globally rare and threatened species of paludified forests (such as *Poa remota*, *Schizachne callosa*, and *Epipogium aphyllum*) and mires (*Carex alba*, *Carex meyeriana*, and *Juncus stygius*, the latter being extremely rare in Siberia, *Hammarbya paludosa*, and *Liparis loeselii*). Among the mosses *Riccardia chamaedryfolia* (very abundant), *Harpanthus drummondi* (in Siberia restricted to Vasyugan), *Schistochylopsis laxa*, *Sphagnum jensenii* (one of the most abundant in Vasyugan), and *Sphagnum aengstroemii* can be mentioned.

The network of small rivers, creeks and lakes of Vasyugan Mire is also an oasis for globally threatened bird species such as peregrine falcon (*Falco peregrinus*), golden eagle (*Aquila chrysaetos*) and (possibly) slender-billed curlew (*Numenius tenuirostris*). The mire's macropatterns are worldwide unique.

The road to King's Island.

She drove to school every morning in all weathers and she hated it with a fearful anticipation. In 1950 cars were not as reliable as we take for granted now and there were battles with a starting handle every morning and roads were bad in the part of Northern Ireland where we grew up. We lived on solid enough ground, physically, though it was fairly shaky metaphysically speaking, reared as we were between the two warring dispensations of the political situation in that god-ridden place.

She taught in a school fourteen miles away. She could not get a job nearer – something about being married to a publican plus the rampant sexist discrimination that riddled employment then – there were hardly any head-mistresses in the primary schools – (we won't even mention the religious discrimination – but there – I've mentioned it) – so she set out on a journey across the small twisting narrow roads that traversed our back of beyond, some of them hardly tarmaced. It would be a formidable enough daily journey now but then, it was a major undertaking.

Hers was the only car on the road except for the priest's and occasionally the doctor's, out on a call from Coagh or Dungannon and by this very token there were few garages, few local mechanics, no break-down services – in any case there were no telephones. The telephone was only installed in our house (and we were very avant-garde) in the late 50's and the neighbours came to use it, so if the car broke down or a tyre was punctured, she was on her own in the middle of the country often in the dark and the cold.

The place she most dreaded was the bog road that ran towards King's Island where her school was situated. Although we took the strange clear name for granted, it was an alien moniker so candid and unsecret among the mysterious Irish names of the townlands that surrounded it – Killycavanagh, Tamnamore, Annaghmore, Killybegs, Ardtrea, Cluntoe. Although I registered the crispness of the name, I never quite took it in that it was, or had been, descriptive – that this little piece of land had once been a raised island in the middle of a bog – actually it was always called The Moss in our district, - and that the Moss road had

once been, near enough, a small causeway. So although we did not attend the school she taught in, and did not do the journey that often, it was on that straggly negotiation towards her school that I first recognized the phenomenon of bog and bogs, and moss roads, and on every journey it always struck me anew.

You could almost sniff the change in the air as we got nearer to the bog road; children, like dogs, are like barometers, constantly reacting to pressure and elements and atmosphere and all three were elementally present in our Austin as my distracted mother drove white-knuckled along the pot-holed road. The line and air along the edges of the bog seemed different; even on dry days there was a hint of mizzle, of tension between damp and dry, the air lambent, full of condensation. Even though we were well used to water, having grown up by the great silvery shield of Lough Neagh, this liquid was more to do with secrecy than with reflections; this was the dew of ages soaking into earth's tissues.

We were of course infected by her fear. If the car toppled over it would be sucked in softly, plop, the soft earth closing over quietly, the matted vetches knitting up, the soft wellings still and innocent, no sign of us. It wasn't so far-fetched; there were a couple of mounds out at the edges which we knew were the remnants of sod houses melting back into the bog since they were abandoned, shards of a poorer time. And I'd read the graphic and thrilling account of Carver Doone sinking into the quagmire in *Lorna Doone*.

The little field in the townlands around our house were productive, with cows and crops, and the places were peopled thickly, houses on every second field. But the bog was empty of produce or domestic animal or humans, and yet filled with life: snipe and wagtail and weasel and rich vegetation – bog cotton, sally tress and a myriad of plants, small birch trees along the edges and of course the rich black turf. For

all my fears I wanted to stop, to venture the grasses and whins, the milk worts, the ferns, the mares'-tail and the yellow flags which we called shaggins.

She drove as fast as she dared, to get away from that shifting stretch of land and onto dry trustworthy definite stuff where people gauged the sky for the weather and not the ground.

It was only years later that I learnt the Gaelic meaning of the townlands that she traversed towards safety, a whole landscape we had lost the skill to read. *Bordnamona*, edge of the turf, *Annaghmor* – great marsh; *Aneeterbeg* – little low-lying ground, *Cluntoe* – meadowy land, where she began to relax a little, within what she called a hound's gowl of home, and thence through *Farsnagh* a wide roomy place, past the Old Cross at least a thousand years old, and one of the great treasures of Ireland, and into *Sessiagh*, the sixth division where we lived.

Further along the Moss road, where the ground rose a little into remote rampars, were a few scattered cottages at the end of hedgy loanings and one summer's day we drove up one of these loanings to the thatched cottage with its jamb wall, its front room, its single bedroom and a family of nine people living in it. Some of the older children wove the sally rods into baskets and I wish I had one now, so intricate, sturdy, and satisfactory. While she was buying the baskets I went around the side of the house and stepped out across the street as we called it and up the rampar and into the mossy hinterland. I once read that when we walk across bogland – across sphagnum – it may take a year or more before our footprints disappear. I want to think that somewhere that child's impress, so hesitant, so venturesome is lying fifty years below the surface, waiting for her return.

Polly Devlin.

From the IPCC 2002 book *Celebrating Boglands*.

Peat and the Historic Environment

The Council for British Archaeology (BA) has recently been considering its position regarding Peat and the Historic Environment. Here follows the text of their Draft Position Paper.

Peat and the Historic Environment

1. Peat deposits fall within the definition of the archaeological heritage provided by the Valletta Convention and are generally of value for the historic environment because:

- They contain fossil biological remains of insects, pollen, and other plant remains that represent a buried record of environmental change and human land-use over the last 12,000 years

- They can contain buried and exceptionally well preserved timber and other structures
- They can contain buried and exceptionally well preserved objects and remains of archaeological interest, that do not survive elsewhere
- They can conceal buried archaeological sites that pre-date the development of the peat and are exceptionally well-preserved
- The present-day landscape character of peatland areas often reflects historic land use and traditional farming patterns that are both varied and highly distinctive
- They support viable historic rural crafts, that have conservation benefits both through the land use

management and the supply of products that are valuable for conservation.

2. As historic assets, peat deposits are a non-regenerating, non-renewable resource.
3. Commercial peat extraction is fundamentally unsustainable for long term conservation of the historic environment as there are economically viable alternatives to most uses of peat.
4. The adoption of alternatives to use of peat for horticulture and other applications needs to be speeded up, thereby progressively reducing the need for further extraction.
5. At the same time there needs to be a concerted effort to reduce the impact of the residual need for peat extraction on the historic environment.
6. Assessing the effects of such extraction on the historic environment, whether at a strategic level or case-by-case, must be holistic, precautionary, and based on a risk-based approach that fully allows for inherent uncertainties.
7. Gathering adequate baseline information at an early stage (accompanied by better predictive models and risk assessment) is fundamental to sound decision-making.
8. The nature of impacts on the historic environment must be recognised, for example in relation to how:
 - Peat areas may be valued for a wide range of reasons that can be local, regional national or international in scope

- Loss of historic landscape character concerns visual and other amenity values, as well as evidence of the past
 - Uncertainty about the full extent and character of the historic resource means that potential impacts which are not directly demonstrable should be assessed in terms of recognised risks
 - Some kinds of impact are poorly understood and need further research, including how hydrological changes can affect quality of preservation in areas not being directly disturbed
 - The palaeo-environmental and archaeological interest of deposits can vary significantly within small areas, and this can be significant in assessing the impact of extraction.
9. The Environmental Impact Assessment procedures offer a useful framework for developing decision-making procedures.
 10. There is a need to develop a series of good practice policy statements and procedures that could be used as a checklist for environmental audit against which the environmental policies, site selection and operational procedures of peat extracting companies and retailers could be tested in relation to conserving the historic environment.

For more information: George Lambrick, Council for British Archaeology, Bowes Morrell House 111 Walmgate, York YO1 9WA, UK. Email: GeorgeLambrick@britarch.ac.uk

Cultural value of Peatlands: an ancient viewpoint

The motto of this year's Ramsar CoP meeting was „Water, Life, and Culture,” which gave the world a chance to highlight the cultural and socio-economic values of wetlands. These issues are of course not new. People and their cultures have been influenced by wetlands and peatlands since the dawn of humankind and even specialised branches of science have developed built on the cultural information stored in peatland deposits alone.

Below is a story about an archeological find of a bronze kettle in a Scottish peatland some 200 years ago. The author, Mr. William Aiton, relates this story on pages 9 to 11 of his „Treatise on the Origin,

Qualities, and Cultivation of Moss Earth, with Directions for Converting it into Manure,” published in 1811. Most of the sentences in the book are as long as, or longer than, its title and Mr. Aiton likes to be as explicit as possible. Moreover, he will never pass over an opportunity to make clear others made mistakes where he himself

would not. Of course this was common scientific practise in these days when science was not only based on observation and truthful relation of the facts, but certainly much more than nowadays also on rhetorical powers and biblical sources.

Aiton despises those who have never seen nor felt a peatland in their lives and still reckon they have sensible things to say on the subject. And he is very direct about that. He is, however, also very direct about those he deems of lesser wit than himself.

CHAP. I

NEGATIVELY WHAT MOSS IS NOT.

SECT. I

Moss is not of Antediluvian origin.

[...]

The absurdity of the notion of moss being collected by the deluge, is further established by the great number of arms, coins, and utensils, found under it, and clearly known and ascertained to pertain to nations as of yesterday, in comparison of the antediluvians.

[...]

In summer 1805, a farmer at Sandilands, on the Water of Douglas, Lanarkshire, found under moss, more than six feet deep, on that farm, a camp kettle of



© UACIZO & UOSICINNY / ea. Dargaud

Roman bronze, which contained about four English gallons. It was used by his family for culinary purposes, till Whitsunday, 1807, when it was sold by public roup [auction], to a neighbouring farmer at eleven shillings sterling. I heard of it in August that year, and instantly waited on the purchaser, but found that he had sold the kettle to the founder [one who casts metal in forms] at Lanark mills for fifteen shillings. Alarmed for its safety, I instantly waited on the founder in hopes of saving from the crucible this valuable relic of antiquity. But I was three weeks too late, for this imp of Vulcan had made the Roman camp kettle pass through his fiery furnace, and converted the brass, of which it had been formed, into machinery for the mills. I asked this descendant of

Tubal-Cain, if he was not aware, that the vessel, from its antiquity, would have procured him more than twenty times its value in bullion? when he told me, that „sum budy said to me, that was a kind of Papist thing,” and that his wife wishing to preserve it had carried it to the garret, but being in need of that kind of metal he had melted it down. We parted with mutual regret; I for the loss of an ancient relic sacrificed to ignorance, and Mr. Founder for the loss of the high price, which I assured him it would have brought. His remorse was heightened by the sage remarks of his wife, who reminded him, that this was not the only time he had erred in not adhering to her counsel.

Peatland management practices Case studies

Management of peatlands in many countries is facing numerous problems. There seems to be a lack of coordinated efforts and holistic approach in dealing with and managing this exceptionally fragile ecosystem. In order to support improved management of peatlands in Southeast Asia, China, Russia and other regions, information is being gathered on experience and lessons learned from peatland management practices around the world.

The Global Environment Centre (GEC) is working together with Wetlands International, Wildlife Habitat Canada, ASEAN Secretariat and other agencies to gather these case studies with the support from the Canadian funded “Climate Change, Forest and Peatlands in Indonesia” (CCFPI) project and UNEP-GEF funded global project on “Integrated Management of Peatlands For Biodiversity and Climate Change”. Information gathered will be translated as necessary and made available to peatland managers in different countries. Case studies submitted will be studied and synergized into a comprehensive and practical manual as a tool to assist peatland managers and stakeholders to better

manage their peatlands, and to avoid unnecessary consequences, such as peatland fires, peat subsidence, mismanagement of water, and loss of biodiversity. In an effort to compile past and current management practices, new experimental approaches, and lessons learned from the management aspect of peatlands, we are inviting you to send us information on existing manuals or case studies or fill out this case study form to provide us with your information and experiences. The best case studies shall at the end be edited and compiled into a book/manual for publication as well as being made available through the peat portal web site www.peat-portal.net and through relevant international organisations. Authors of the case study material may be invited or sponsored to attend related workshops and online discussions.

Please contact the Global Environment Centre (7A, Jalan 19/29, 46300 Petaling Jaya, Selangor, MALAYSIA. Fax: +603-7957 7003 or E-mail david@genet.po.my). Case studies need to be send in until 25 January 2003.

Regional News

News from Indonesia: Haze Prevention Group Indonesia

by Olle Wennstrom

Haze Prevention Group is close to end its second year of operations in Indonesia. During the first two years the foundation has worked hard to reach its goals. The vision of Haze Prevention Group is a forestry and plantation industry in Indonesia, free from forest and plantation fires as well as forest and plantation burnings. This is to be achieved by working on two parallel tracks. Firstly by informing member companies in the forestry and plantation industry in Indonesia both about the environmental disadvantages of forest and plantation fires as well as about the magnitude of the problem. Secondly through assisting the member companies in designing and developing forest fire protection in the shape of well functioning prevention as well as balanced and well functioning capacity to handle any upcoming forest fires. We think it's essential to show the industry how to do it right and that it is possible at a commercially viable price.

The group of member companies are now five.

1. PT Asian Agri Abadi
2. PT Arara Abadi
3. PT SMART Tbk
4. PT Riau Andalan Pulp & Paper
5. PT Sumatra Timber Utama Damai

If you haven't been to our web page, pay it a visit. You find articles about us and our members as well as useful links to haze related sites on the web. The address is www.hazeprevention.com.

So what has Haze Prevention Group achieved during its second year of operations. Approximately a thousand people have been trained in the member companies. Training is basically aimed at three levels. Concession managers receive a 2-day training focused on fire prevention and management of the concession and its resources in fighting forest fires. Fire crews have been set up in the member companies. Each member of such a crew receives a two-day basic forest fire fighter course. The Crew Boss for these crews of 10 people each receives an additional 2-day tactical training. Equipment has been purchased and more is on the way.

What is even more pleasant to witness is that some of the companies have started to run internal investigations on occurred fires in order to hunt down the culprit and prevent recurrence. Scrupulous contractors are to be removed from the business. In at least one recent case the contractor is the suspect and as soon as legally binding evidence is at hand contracts and further business relations are to be terminated. Haze Prevention Group is supporting the action and monitoring it.

For next year we hope to be able to gain more members in our foundation. As we are a non profit

organisation and dependant on the members contribution we sincerely hope that the new year will bring us additional members in order to intensify our operations in the field and improve our results in combating the trans-boundary haze in the region.

For more information: contact Olle Wennstrom: ow_se@pacific.net.sg

www.hazeprevention.com

News from Malaysia: Development of ASEAN Peatland Management Initiative

Background

At the Ministerial Forum during the World Conference and Exhibition on Land and Forest Fires Hazards in Kuala Lumpur on 10th June 2002, the Malaysian Minister of Science, Technology and the Environment called for cooperation amongst ASEAN countries to address the issue of fire prevention and control in peatlands. Subsequently, the 19th ASOEN Haze Technical Task Force (HTTF) and the 9th ASEAN Ministerial Meeting on Haze (AMMH) on 10-11th June 2002 discussed the issue of fire prevention and control in peatlands which is considered an important issue in the ASEAN region. An update was given to the HTTF on the recent work in the region such by the Global Environment Centre, coordinator for the Southeast Asia Peatland Network (SEA-PEAT) which brings together more than 280 individuals and more than 50 agencies involved in peatland assessment and management. The AMMH subsequently decided to develop further the concept for a regional initiative on peatland management and fire prevention in conjunction with the Global Environment Centre and mandated by the Chair of the HTTF to follow up on this matter.

Following that, a draft working paper on ASEAN Peatland Management Initiative (APMI): Sustainable Management of Peatlands, Prevention and Control of Peatland Fires was developed by the Global Environment Centre and circulated through the HTTF to the member countries in early August 2002. On the 12-13th August 2002, the working paper was presented at the 11th Joint Meeting of the Working Groups on the Sub-Regional Fire-fighting Arrangements for Sumatra and Borneo (SRFA) in Singapore. The SRFA working group supported the further development of the APMI Proposal.

Proposed Framework of APMI

One of the main focus of the initiative is to find ways of building upon or linking up all the existing activities/work on peatlands in the region of Southeast Asia. Some of the initial activities proposed for the initiative is to review and identify existing activities in the region, building an initial database of these activities and the institutions

involved together with a set of recommendations to link and build upon these activities. The primary tool for information dissemination and sharing would be the internet using „Simplify“ community portal software and building on the initial „Peat-portal“ site and SEA-PEAT Network developed by GEC and partners in 2001/02. The initiative would serve to provide a framework to link all these activities, facilitating exchanges of information or promoting dialogues between the different groups working on these projects, thus, developing a strong information dissemination mechanism or network would be a key element of the initiative. Experience and lessons learned from demonstration sites will be shared and disseminated between the countries in the region. The initiative will also look into aspects of facilitating exchange and sharing of international experience in successful peatland management, ecological restoration and fire prevention/control with the countries in the region through Best Management Practices (BMP).

The draft APMI proposal and progress of development can be viewed at the PEAT-PORTAL (www.peat-portal.net <<http://www.peat-portal.net/>>). For those who are interested in knowing more regarding the development of this Initiative, and would like to share information on best management practices of peat i.e. case studies, please contact David Lee at david@genet.po.my or at 7A, Jalan 19/29, 46300 Petaling Jaya, Selangor, Malaysia.

David Lee

News from Russia:

Wladimir Bleuten Doctor honoris causa at University of Tomsk

Our IMCG member Wladimir Bleuten of Utrecht University has been awarded the title of „the Honorary Doctor of Scientific Research Institute of Biology and Biophysics at Tomsk State University“ for his personal services and expression and great contribution to the development of scientific collaboration between Tomsk State University and Utrecht University in the sphere of landscape ecology, biogeology, and nature protection.

Since 1992 Wladimir has been initiating, stimulating, and coordinating joint research on the ecosystems of West-Siberia, including studies on the effects of oil pollution, on Carbon storage and atmospheric exchange in peatlands, and on climate change and carbon accumulation, leading to more than 20 joint papers international magazines.

As scientist and teacher of one of the largest European universities, which plays a leading role in ecology, geography, and geographical information technologies, Wladimir Bleuten will take an active part in educational process at Tomsk State University in future.

Congratulation Wladimir!

News from Belarus: GEF project launched

A GEF-funded project “Renaturalisation and sustainable management of peatlands in Belarus to sequester CO₂, combat land degradation, and ensure conservation of globally threatened biodiversity” has recently been launched in Belarus.

Over the past 40 years, some 61.7% of the Belarusian territory have been drained (in 1960, natural mires covered 2,350,567 ha, dropping to just 900,723 ha by 2000). The drainage of the once vast wetlands has brought about a range of global environmental consequences, like global climate change, soil erosion, degradation of natural habitats, reduction in biological diversity, periodical destructive fires.

Since the majority of all mires were drained without proper scientific substantiation, the drained areas turned out to be used ineffectively, at the same time, posing some environmental problems. The low-return use of drained areas in economy is also an issue (low crop yields, low wood growth at forest drainage sites, etc.), with the drainage of raised bogs currently acknowledged as erroneous. Realising the complexity of the present situation, the government has undertaken a specialised inventory of degraded peatlands with a view to ensure their sustainable management. The inventory has revealed that the overall area of drained and ineffectively used peatlands is 453,500 ha (78,000 ha of agricultural sites; 209,000 ha of depleted peat cutting sites, 166,000 ha of forest drainage sites). These are the areas that pose fire threat, because they are no longer used for the original purpose, but the drainage canals continue to operate. The fire threat at these sites is particularly high during dry years, when the upper peat layer dries out completely. Belarus has been heavily affected by peatland fires in 1992, 1995, 1996 and 2002. In 2002, a total of 4,042 peatland fires were registered in Belarus, damaging some 11,000 ha of natural forests alone.

The research has shown that reflooding of peatlands with disturbed hydrological regime, depleted peat sites and degraded drained agricultural areas can ensure effective conservation of biological diversity and maintenance of a favourable hydrological regime.

The expediency and, in most cases, the need for re-flooding of the transformed natural areas have been recently acknowledged by the government and is now taken proper account of in the preparation of a state program to combat wildfires. In December 2002, a GEF-funded peatland rehabilitation project has commenced in Belarus that involves leading experts from the National Academy of Sciences of Belarus, Ministry of Natural Resources of Environmental Protection of Belarus, Committee for Forestry, and the Beltopgaz Company. The three-year project aims to re-flood 7-10 sites with a total area of 11,000 ha, thereby helping create new habitats for globally

significant biodiversity of fen mires and cut down on CO₂ emissions.

Alexander Kozulin & Sergey Zuyonok
APB-BirdLife Belarus
Kozulin@biobel.bas-net.by

Belarussian peat to Sweden

Zhitkovichi Peat Factory recently concluded a long-term contract with a Swedish company to supply peat bricks.

Under the 4-year contract, a total of 120,000 tons of peat bricks (30,000 tons annually) is to be exported to Sweden through Liepaja port in Latvia. A trial lot of 6,000 tons was delivered to Sweden in March 2002, with both the price and quality meeting the requirements. As of today, a total of around 20,000 tons of peat bricks with a value of USD 343,000 has been supplied to Sweden (the peat factory gets around \$18 per tons of bricks).

The Belarussian-Swedish deal has been mediated by the Tallinn-based Belarussian Information Commercial Center, a joint project by the Ministry of Foreign Economic Relations of Belarus and Estonian company Tureks.

The peat trade, if continued at the current pace, would surely provide employment for peat factories across Belarus. The country's peat reserves are estimated at over 5 billion tons at the very least. Furthermore, countries with milder climate have also demonstrated strong interest in peat, particularly in soil ameliorants. Composed of 80% of peat, chemical soil ameliorants are used for improving soil fertility and crops yield. Aside from this, peat by-products can be used for production of new composition materials and compounds for decontamination and cleaning of various pollutants.

Just recently, a delegation from the United Arab Emirates visited Minsk to discuss possibilities for peat export. Particular interest in the subject has been voiced by Bahrain, Kuwait and other countries in the region.

According to available information, the purchase of modern equipment for production of ameliorants is expected to be partly financed by Middle East companies.

Source: Belarusskaya Delovaya Gazeta

News from Armenia: SGF Project completed

Armenia successfully completed its SGF 1999 project „Ecological and economic valuation of Armenian wetlands: a step towards elaboration of the National Wetland Policy.” The project was carried out by the NGO Professional and Entrepreneurial Orientation Union (NGO Orientation) and it was financed solely by a grant provided from the Ramsar Convention Bureau. As a result the project delivered the most comprehensive list of Armenian wetlands worked out

so far, a wetland database, the first nationwide economic valuation of wetlands, outputs of seasonal ecological and economic surveys at 6 typical wetland areas in different regions of the country and at different altitude, impact assessment analysis of infliction of harms on wetlands by various human activities, promotion of public awareness of sustainable (wise) use of wetland products, values and functions, and last but not least during the project implementation have been identified 4 more wetlands of international importance to be inscribed on the Ramsar List.

The general conclusion resulting from the impact assessment is that all the threats inflicted on wetlands in Armenia are human induced. Among the most significant threats are water loss, water over-abstraction, soil deterioration and erosion, accelerated sedimentation, mudflows, pollution, disturbance, deforestation, invasive species, etc. The root cause for most of the human induced threats is underestimation of economic and especially of ecological values of wetlands leading to different mainly harmful approaches wetlands and their utilization.

Whenever it was possible the staff engaged with the project implementation worked on increasing public awareness among stakeholders and users, governmental authorities, NGOs by means of lectures, photo exhibitions, dissemination of promotional and educational materials.

For first time a comprehensive monetary valuation of Armenian wetlands was carried out during this project, using a method described by Barbier et al. (1996; Economic valuation of wetlands, a guide for policy makers and planners, edited by the Ramsar Convention). Despite the relatively small number of wetlands in Armenia their value has been calculated at ca. 200 million USD per year or 125 USD per ha per year. The latest figure is conforming with the value of a crop field or a meadow.

Undoubtedly this project has delivered valuable background information to be used as a starting point in drafting and contemplating the National Wetland Policy. The Ministry of Nature Protection of the Republic of Armenia is already making use of the project outputs and it has commenced the process of policy elaboration.

Reported by Sergey Dereliev, Ramsar
<http://www.ramsar.org/sgf_rpts_armenia3.htm>.

News from Greece: Olympic win for Greek wetlands

December 2, 2002, WWF – Plans to develop one of southern Greece's most significant coastal wetland areas into a canoe and rowing site for the 2004 Olympic Games have been reversed, following a campaign by WWF, partner NGOs, the European Commission, and the general public. The Greek

government has officially included Schinias in the national list of proposed Natura 2000 sites, and has removed the site from initial development plans for the Slalom-Canoe course. For the full article go to: http://www.panda.org/news_facts/newsroom/other_news/news.cfm?uNewsID=4721

**News from Germany:
Peatland programme in Federal State of
Schleswig-Holstein adopted**

by Michael Trepel, Kiel

In July 2002, the Environmental Ministry of the federal state of Schleswig-Holstein has adopted a peatland programme. In Schleswig-Holstein, the most northern state of the Federal Republic of Germany, peatlands cover today an area of approximately 1450 km² or 9.2 % of the terrestrial area. The majority (1150 km²) are minerotrophic peat soils, ombrotrophic peat soils have a proportion of 20 % of the peatlands area. Presently, all peatlands are affected by drainage and agricultural and forestry use of different intensities. According to the state wide habitat mapping, ecological valuable habits occur only on a quarter; only half of these areas have hydrological conditions close to nature. Although peatland restoration and mire conservation have a long tradition in north-western Germany both activities concentrated on conservation of raised bogs and restoration of former peat extraction areas, strategies for the restoration of minerotrophic peatlands were missing. Therefore the peatland programme was developed during the last 5 years mainly from the water management department of the State Agency for Environment. The programme focuses on the restoration of degenerated minerotrophic peatlands with the aims (I) to reduce internal nutrient losses due to oxidation of the peat layer, (II) to improve the external nutrient retention function of peatlands and (III) to improve the abiotic conditions for species and habitats adapted to wet and nutrient poor conditions. The Environmental Ministry considers the adopted programme as a contribution to the implementation of the European water framework directive, which demands prevention of further deterioration and protection and enhancement of the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems (§4). The programme has the target to rewet 30.000 ha of minerotrophic peatlands within the next years, the programme will offer funding for land purchase and the implementation of a new water management.

An innovation of the peatland programme of Schleswig-Holstein is the goal of the plan to restore degenerated peatlands for water quality improvement reasons. However, the implementation of this aim requires in practice a profound understanding of the

groundwater-surface water interactions of different hydrogenetic peatland types.

While the non-material use aspect of the peatland programme offers new possibility for the self-organised development of degenerated peatlands into peat accumulating mires, a state wide mire and peatland policy is missing. For this strategy it is required to identify the ecological most valuable peatlands and to take measures for their conservation and restoration.

For more information contact michael@ecology.uni-kiel.de.

New priority list for peat extraction

The German Federal State of Lower Saxony has put 10.000 ha of peatlands on the new priority list for peat extraction. The reason was, that many peatlands on the former list were in the meantime irreversibly damaged by agriculture and peat extraction. Many of the areas that were included in the resource priority list of 1994 should furthermore – according to conservation criteria - be excluded from that list because of their importance for nature conservation.

The new list of priority areas is substantially smaller than the former list, but this is largely cosmetics, as most excluded areas were either no peatlands anymore, or already extracted, or not of interests for the peat lobby. Only two former priority sites were excluded. In one area the peat industry was not interested, whereas the other contained so many compensatory sites for interventions in nature and landscape, that there was no alternative.

Of the 10.000 ha at least 4.000 ha are located in the Wesermarsch, where never industrial peat extraction has taken place. The sites lay around sea level and agricultural use there is only possible by artificial drainage with pumps. Within these sites a series of small bog remnants are located (.e. the Ipweiger Moor with a special occurrence of *Rubus chamaemorus*), that have been designated as protected areas according to the EU Habitat Directive. These areas will not be cut-over, but their future in the midst of artificially drained extraction sites will be absurd.

The local communities also oppose peat extraction in these areas because they fear the transformation of the familiar bog grassland landscape in an industrial peat extraction site for a period of 20 – 40 years. Even the promise of a later restoration of the site cannot convince, because they simply and rightfully ask why the sites are not restored immediately instead of spoiling the whole area for a long period of time.

Privatisation leads to trouble

“The case did not work out well...” the new prime minister of the German Free State of Saxony Georg Milbradt admitted during his visit to the Ore Mountains. In the beginning of the 1990s his state had sold the Mothäuser Heide to a real estate broker for the ridiculous price of 5 Eurocent per square meter. Since then whole armies of conservation

officers, civil servants, and administrators are involved to prevent or turn back damage inflicted to the bog area. In spring 2002 a new owner had even successfully applied for financial support to construct a large road through the bog. The application was accidentally awarded by the state forestry service without informing the conservation office ...

The Mothäuser Heide is the oldest and most valuable conservation site of Saxony. Its core area was already legally protected in 1911; since 1938 it is forbidden to take away plants there, and since 1961 access to the area is severely restricted. Did has not kept the Free State of Saxony in the early 1990s from selling the reserve, a decision that is now regretted, but cannot be turned back....

News from Norway: Norway designated 14 new Ramsar sites

The Government of Norway has designated 14 new Wetlands of International Importance, to be dated as of 6 August 2002. Senior Adviser Øystein Størksen of the Directorate for Nature Management in Trondheim notes that all of these new Ramsar sites, which extend from the populous and more developed regions of the south to the sparsely developed regions of the north, are presently protected as Nature Reserves, and most are being designated for their importance for migratory birds, though many other functions and values (such as flood control and water cleansing) have been listed as well.

In addition, Norway is considerably extending the Ramsar site formerly known as Jæren (designated in 1985), now renamed Jæren Wetland System, with the addition of 18 new „units“, bringing the area encompassed from 400 to 3256 hectares.

Norway has now zoomed into 8th place, in terms of planet Earth, in the number of Wetlands of International Importance so far designated, with 37 - trailing only the UK (169), Australia (57), Sweden (51), Italy (46), Ireland (45), Denmark and Spain (38), and nudging ahead of Canada (36) [which, however, could respond by boasting of 116 times more land area covered].

Among others the following mire sites are included:

Fokstumyra. 06/08/02; Oppland; 785 ha; 62°08'N 009°15'E. Nature Reserve.

Norway's first nature reserve (1923), a flat alpine landscape with extensive mires interspersed with lakes and large tracts of shrubs and aquatic vegetation. Well-known to birdwatchers for some 40 species of waterbirds and a number of alpine passerine species, as well as one of the largest population of Great Snipe in Europe. The site is also lightly used for leisure activities such as walking and fishing. Ramsar site no. 1189.

Havmyran. 06/08/02; Sør-Trøndelag; 4,000 ha; 63°30'N 008°35'E. Nature Reserve.

A unspoilt characteristic coastal Atlantic mire and lake system that serves as an important breeding site for several bird species, most notably Southern Dunlin (*Calidris alpina* spp *schinzii*) in 10-20 pairs. The pine *Pinus sylvestris* is found on the peripheries, partly of old growth character. Human uses include low-impact leisure walking, sport fishing, and berry-picking. A monitoring programme is observing possible increased levels of nitrogen in precipitation originating from a newly-opened gas refinery some 4 km away. Ramsar site no. 1190.

Hynna. 06/08/02; Oppland; 1,547 ha; 61°13'N 009°55'E. Nature Reserve.

A representative mire habitat of northern latitude, flat or weakly sloping mire with extremely wet terraces mixed with drier parts, interspersed with both small and larger ponds and lakes. Thirty species of waterbirds, including several that are red-listed, have been recorded in the area. Especially in light of drainage of other parts of the catchment, the site plays a very important role in flood control. Human uses are limited to leisure activities, including sport fishing and berry picking. Ramsar site no. 1191.

Kvisleflået 06/08/02; Hedmark; 3,300 ha; 61°48'N 012°05'E. Nature Reserve

A large, flat-mire landscape, with large deposits of moraine, which creates a mosaic of dry and wet areas interspersed with ponds and lakes - a transboundary protected site with Sweden. Several rare species, including *Gavia arctica*, *Grus grus*, *Limicola falcinellus*, and *Lymnocyptes minimus*, breed in the area. The site is important for flood control in an area where many similar sites have been altered and more severe flooding episodes have been recorded in recent years. Forestry is among the main sources of income in the area, and the site itself is used for low-impact hunting activities, with some berry picking as well. Ramsar site no. 1193.

Øvre Forra. 06/08/02; Nord-Trøndelag; 10,800 ha; 63°37'N 011°35'E; Nature Reserve.

A huge intact peat mire system at higher elevation, partly forested with notably *Picea abies*, interspersed with several smaller lakes and a meandering river. The landscape is undulating and mires also exist on sloping terrain (due to high precipitation); some smaller peaks and areas with drier vegetation also exist. The site supports a number of rare or threatened breeding bird species, especially *Gallinago media*, as well as the threatened Otter *Lutra lutra* and the rare orchids *Coeloglossum viride* and *Hammarbya paludosa*, among 328 species of vascular plants. Forestry is among the main sources of income in the area but does not affect the site directly, which is lightly used for hunting, fishing, trekking, canoeing and skiing, and some berry picking. Iron melting sites from one to two thousand years old have been uncovered. Ramsar site no. 1194.

Skogvoll. 06/08/02; Nordland; 5,500 ha; 68°58'N 015°55'E. Nature Reserve.

The mire area is one of the most extensive lowland Atlantic mire complexes in Norway, dotted with numerous ponds and lakes. The other half of the area consists of shallow marine waters, with islets and skerries, tidal zones and a rare lagoon system with brackish and fresh water. Wet salt-influenced meadows fringe the shorelines. The marine part of the site is important for staging migratory birds, particularly Pink-footed Goose *Anser brachyrhynchus*. The system of brackish lagoons with freshwater flora (*Hippuris*, *Potamogeton*) in the tidal zones has been noted by botanists as very rare. Human impact upon the site is very low. Ramsar site no. 1195.

Slettnes. 06/08/02; Finnmark; 1,200 ha; 71°05'N 028°13'E. Nature Reserve.

Coastal meadow with mires and numerous ponds and lakes on the arctic shores of northernmost Norway. A number of "fossil" and elevated shorelines (several kilometers long) characterise the landscape. Some bird species occur in unusually high densities, with for example colonies of some 170 pairs of Arctic Skua *Stercorarius parasiticus*. Since the site has recently been connected to the mainland by a new road, easier access for tourists and birdwatchers may cause some disturbance for the breeding birds, but birdwatching, sport fishing, and berry picking continue at a low level. Ramsar site no. 1196.

Tufsingdelta. 06/08/02; Hedmark; 920 ha; 62°12'N 011°49'E. Nature Reserve.

Wetland with mires and the river Tufsinga's delta into Lake Femund, with a very high number of wetland types, including mires, flowing watercourses, lakes and ponds, and shrub/gallery forests. The formation of mires into the lake through overgrowing of ponds is considered to be remarkable. Areas of impenetrable floating mires exist both on land and in the lake. Human uses includes sport fishing and canoe-paddling, but habitation levels and human impacts are very low. Ramsar site no. 1199.

Jæren wetland system 24/07/85; Rogaland; 3,256 ha; 58°50'N 005°34'E. Nature Reserves.

An extension of 18 wetlands units to the existing 4, expanding the 1985 Ramsar site from 400 to 3,256 ha. The system lies in an agriculture-dominated area of southwestern Norway with formerly extensive wetlands - coastal sites remain largely intact, but freshwater sites have been drained on a large scale. Marine areas are dominated by sand, mud, pebble, and stone shores, with large areas of dune systems. Freshwater areas are characterized by shallow water and extensive stands of *Phragmites communis*, and three smaller mire systems have also been included in the site. The newly-extended site is said to be incomparably the single most important area for wetland-related birds in Norway, especially as a

staging and wintering area. Given strong agriculture influences and high levels of nitrogen pollution in the area, the importance of the remaining wetlands in the lowland is extraordinarily high in terms of their function as sediment traps and in water purification. Along the shorelines one can find the densest collection of archaeological sites in Norway, with grave mounds dating back a thousand years or more. Action plans to decrease agricultural runoff are showing promise, and buffer zones are being contemplated. Tourism (walking, sunbathing, birdwatching) is fairly heavy in the area. Ramsar site no. 309.

<http://www.ramsar.org/w.n.norway_14new.htm>

News from Estonia: Bog landfills – a new trend in Europe

A Swedish waste management company Ragn-Sells AB's affiliated enterprise AS Ragn-Sells Eesti is planning to build a 69.2ha large landfill complex allegedly in accordance with European Union (EU) requirements on a bog in Estonia. 40ha of that area would be covered with a 35m high landfill where waste from Tallinn as well as three counties would be disposed of. The closest landfill that meets the EU requirements is 57km away, another landfill being built now is 37km away.

The necessity of the planned landfill is also questionable because there are merely 1.36 million people in Estonia on a 45 000km² big territory and these people generate approximately 480 000 tons of household waste per year.

Although some peat is being cut, the western part of the Ääsmäe bog (where the landfill is planned) has remained relatively natural, it is covered with forest, and functions as a groundwater recharge site. Close to the area bird species live that are listed in Annex I of the EU bird-directive (*Aquila pomarina* and *Aquila clanga*, both of which belong to the highest protection category in Estonia) and at least seven protected plant species grow in the area where landfill is planned (e.g. *Saussurea esthonica*, which belongs to the second protection category).

In spring 2002, the local municipality gave its permission to launch the environmental impact assessment (EIA) procedure and the environmental ministry announced the EIA programme. In September 2002, the environmental impact statement (EIS) was finished. By October 2002 the public meeting regarding the EIA results took place, during which, however, the following was not justified:

Why are two landfills needed that are located nearly side by side?

Why it is reasonable to build a landfill on a bog considering the unchangeable and environmentally harmful nature of the planned project (there is no waterproof clayey bowl under the bog but groundwater recharge instead)?

Why are opinions of the local people as well as of environmental NGOs left unnoticed? Many protest letters, statements, declarations etc. were made, in which attention was drawn to the harmful effects of the project, its unchangeable nature, the distorted information presented in the EIS, mispending of natural resources, incomplete studies of the area, unsatisfactory consideration of alternatives as well as numerous arithmetic mistakes in the EIS.

Statements of local people are condemned not to be based on facts and hence not taken seriously. Statements by Estonian NGOs have also been ignored. At the same time media is fed with misleading and false information. We find that this project is only justifiable economically; to quote the developer: "For the end-user this primarily means a remarkably lower price."

We wish to draw your attention to problems in post-socialist countries where ecological colonialism is spreading, taking advantage of naiveté and lack of experience.

For more information: aasmae21@hotmail.ee

Ahto Oja, chairman, movement "For a Clean Ääsmäe"

Janek Tippe, village headman, Koppelmaa village
Ants Niinepuu, village headman, Maidla village

Vapo Acquires Largest Peat Producer in the Baltics

Vapo Oy, Finland has reached a preliminary agreement to acquire a majority stake in AS Tootsi Turvas of Estonia. Vapo is buying 95% of the company's shares. AS Tootsi Turvas is the largest peat producer in the Baltics, having 400 employees and a turnover of around 11 million Euros. The company's managing director is Kai Mäeleht. The company produces energy and horticultural peat. Of this, 60%, or around 160 shiploads per year, is exported. Sweden accounts for 75% of exports, the Netherlands and Denmark 15%. The proposed deal forms part of Vapo's strategy of expansion in the Baltic region. Vapo is the leading supplier of biofuels in Finland (21 TWh), Sweden (2 TWh), and with this deal also in the Baltics (1 TWh). Vapo's aim is to develop energy solutions based on local fuels and to replace imported energy. As well as energy fuel and wood fuels, the company produces heat and power, and is also a major supplier of environmental peat, and wood pellets. The turnover of the Vapo Group was 412 million Euros in 2001. For further information, please visit www.vapo.fi, or contact matti.hilli@vapo.fi.

Source: IPS Newsletter

News from the EU:

Greenhouse gas emissions trading system

On 9 December 2002, a little over a year after the Commission presented its proposal for an EU greenhouse gas emissions trading system, the Council

unanimously reached political agreement on a common position on the Commission's proposal.

Emissions trading will establish absolute limits on the emissions of carbon dioxide from the sectors covered, which is not now the case. The trading of allowances will enable costs of cutting emissions to be substantially reduced while still achieving the same environmental benefit: operators that would incur high costs, were they to achieve additional emissions reductions can instead buy allowances from operators which have met their obligations at a lower cost and have excess allowances to offer for sale.

An EU-wide emissions trading will cut cost to the economy by about 35%.

Other greenhouse gases will eventually be included within the scheme upon a separate proposal from the Commission.

This is the first trans-national emissions trading scheme in the world covering potentially, with participation of the EEA countries and in view of the forthcoming EU enlargement, up to 30 countries in the period up to 2012. The CO₂ emissions expected to be covered by the scheme are estimated to account for about 46% of the EU 15's total CO₂ emissions in 2010, and about 4,000 to 5,000 installations across the existing EU Member States will be affected.

Elements agreed include:

- Opt-out: Although trading will start in 2005, individual installations or economic activities can be exempted from emission trading in the final period 2005-2007. Opt-outs are however subject to approval by the Commission, on strict conditions. These notably include fulfilling the same emission reduction requirements as companies and installations participating in the scheme.
- Opt-in: Member States can unilaterally include additional sectors and gases from 2008, subject to approval by the Commission.
- Pooling: The agreement also provides for the possibility for companies to pool their emission allocations until 2012.
- Allocation of emission rights: Allocations of emission permits will be free of charge, but Member States can auction up to 10% of allowances from 2008.
- Penalties: the penalty rate foreseen for the period from 2005-2007 has been slightly reduced from 50€ per tonne of CO₂ equivalent emitted in excess of the allowance to 40€. It will be 100€ thereafter.

News from Ireland:

20 more Raised bogs to be protected

Twenty more raised bogs are to be protected as Special Areas of Conservation (SAC) under the EU Habitats Directive.

In a recent statement (19 November 2002) Minister Martin Cullen T.D. has agreed to IPCC's demands to protect more raised bogs in Ireland so that a representative sample are conserved in the SAC

network. In addition a further 80 raised bogs are to be the first to be designated as Natural Heritage Areas under the Wildlife (Amendment) Act 2000.

With this move an extra 3,450 ha of raised bogs will be conserved in the 20 sites.

IPCC's conservation campaign has already helped to protect 9,400 ha of raised bog and their wildlife in some 37 sites around the country.

News from Canada: Line Rochefort Appointed as Peat Industry Chair

At their spring meeting in June, the members of the Canadian Sphagnum Peat Moss Association (CSPMA) appointed Dr. Line Rochefort from Université Laval to lead the newly established Industrial Chair of Canada for Peatland Management. The five-year commitment includes restoration and reclamation research and is anticipated to be a great benefit to the Canadian peat industry. The Peatland Ecology Research Group, made up of professors and students from four Canadian universities, has been involved with restoration research for the past 10 years. Their contribution to the peat industry continues to be invaluable as they look for more efficient ways to restore and reclaim harvested peat bogs. A complete report can be found in The Bale Mail, newsletter of the CSPMA, which is available from Doris Reeve at cspma@peatmoss.com.

News from Ramsar: World Wetlands Day 2003

February 2, 2003 will be World Wetland Day. This time the theme will be: „No wetlands - No water!“ This slogan was chosen in honor of the UN's International Year of Freshwater. Wetland friends who take up this theme in February can count themselves as part of the first IYF-related activities of the year. IYF Web site:

<<http://www.unesco.org/water/iyfw/>> see also:

<http://www.ramsar.org/wwd2003_index.htm>

United Nations University publishes the Ramsar Wise Use Handbooks on CD-ROM

The Global Environment Information Centre of the United Nations University (UNU/GEIC) in Tokyo,

Japan, has recently published the Ramsar Wise Use Handbooks in a CD-ROM version that is now available to the public, free of charge. The print version of the boxed set of nine pamphlets, edited by Sandra Hails, was published by the Ramsar Bureau in May 2000 (ramsar.org/wurc_handbook_index.htm), but readers have long expressed a wish to have the whole set available in a handier and more cost-effective format. The new CD-ROM includes the English, French, and Spanish Handbooks in Adobe Acrobat PDF format, with a Web browser interface to facilitate the reader's journey through this wealth of Ramsar lore.

From the informative text accompanying the CD-ROM:

“This series of handbooks has been prepared by the secretariat of the Convention (the Ramsar Bureau) following the 7th Meeting of the Conference of the Contracting Parties (COP7) held in San José, Costa Rica, in May 1999. The San José conference was notable for adopting guidelines under each of the three main obligations under the Convention - Wise Use, Wetlands of International Importance and International Cooperation - to add to guidance adopted by previous COPs. These guidelines have been prepared as a series of handbooks to assist those with an interest in, or directly involved with, implementation of the Convention at either the international, regional, national, sub-national or local levels. Other handbooks may be added at a later date. The handbooks have been prepared in the three working languages of the Convention (English, French and Spanish) and incorporate, where appropriate, material from case studies designed to illustrate key aspects of the guidelines. The full text of most case studies can be found on the World Wide Web site of the Convention at <http://ramsar.org/>.”

This publication project has been headed up by Jerry Velasquez on the UNU/GEIC side and Sandra Hails of the Ramsar Bureau. Naturally, the Toolkit will be updated as needed in the aftermath of Ramsar COP8, set for Valencia, Spain, in November 2002. In the meantime, the Ramsar Convention and its partners around the world will long be grateful to the United Nations University for having undertaken this valuable initiative.

Individuals and organizations wishing to have the new CD for their very own should inform Ramsar's Valerie Higgins (higgins@ramsar.org) of their postal address and the quantity required.

VISIT THE IMCG HOMEPAGE AT

<http://www.imcg.net>

New and recent Journals/Newsletters/Books/Reports

Andreev, A.V. (comp.) 2001. Vodno-bolotnye ugod'ja Rossii. Tom 4. Vodno-bolotnye ugod'ja Severo-Vostoka Rossii. (Wetlands in Russia Volume 4: Wetlands in Northeastern Russia). Wetlands International, Moscow, 296 p. (in Russian with English summary).

This volume contains descriptions of 37 wetland sites with a total area of c. 37,000 km² located in North-eastern Asia, i.e. the Chukot Autonomous Area, the Magadan Region, and parts of the Republic of Sakha (Yakutia) and the Khabarovsk Territory. The region is predominantly mountainous, with tundra wetlands located on the seashores and in river valleys. Many sites are characterized by permafrost and thermokarst.

Twenty-four out of 37 sites are recommended for inclusion in the Ramsar List of Wetlands of International Importance. These sites contain unique wetland complexes, which are of special biodiversity value and need full protection. The other sites contain representative examples of natural wetlands types characteristic for North-eastern Asia. The volume contains an introductory chapter describing the wetland types found within the region, their distribution by major biogeographic and administrative regions, the major threats, and the current status of land use and conservation. Information on the individual sites includes location, elevation, area, wetland type, Ramsar criteria, physiogeographic, hydrologic, and ecological characteristics, noteworthy fauna and flora, social and cultural values, land tenure and use, conservation and management, all backed by an extensive list of references.

For more information: Olga Anisimova, Wetland International Russia Programme Office: oanisimova@wwf.ru

Bragina, T.M. & Bragin (eds.) 2002. Vasjnejsjie vodno-bolotnye ugod'ja severnogo Kazachstana (v predelach Kostanajskoj i zapadnoj èasti Severo-Kazachstanskoj oblasti). (The most important wetlands of North Kazakhstan (Kostanai Oblast and west part of North-Kazakhstan Oblast). Russkij Universitet, Moskva, 156 p.

Overview of the most important lakes and wetlands of Kostanai Oblast and the south-western parts of the North-Kazakhstan Oblast of the Republic of Kazakhstan. These lakes and wetlands play an important role in the seasonal migration and as breeding sites for numerous waterfowl and marsh birds. For 16 lake and wetland complexes information is provided on the physiography, fauna and flora, importance for conservation, land use. Proposals for conservation are given. For more information contact WWF Russia: russia@wwf.ru

Charman, D. 2002. Peatlands and Environmental Change. Wiley, Chichester, 312 p. Hardcover £60.00 / €99.00, Paperback £24.95 / €41.20.

A new textbook aiming to provide a comprehensive summary of peatland science. The emphasis is on peatlands as dynamic parts of the landscape that are undergoing constant change as a result of processes of peat accumulation and development, as well as through human activity and climatic variability.

Part I *Introduction* deals in chapter 1 with peat and peatland classification and terminology and presents an overview of global peatland distribution. Chapter 2 describes landform development and the concepts of micro-, meso-, and macrotopo, the role of aerial photography and other forms of remote sensing, and pays attention to the groundwater mound hypothesis. Part II *Peatland Processes* covers hydrology and ecology, the origins of peatlands, and peat accumulation. Chapter 3 presents an overview on hydrology and ecology, including hydrochemistry, discusses the adaptations of peatland organisms to the hostile peatland environment, and describes various environmental gradients (acidity/base richness, fertility, water table, oceanic – continental, expanse – margin, deep peat – mineral soil, spring-flush-fen, climatic). Chapter 4 describes terrestrialization and paludification, chapter 5 peat and carbon accumulation (rates), peatland productivity, decay, and models of peat accumulation.

Part III *Changes in Peatlands* describes in chapter 6 the peatland archive with its palaeoenvironmental information, including dating procedures, survey and stratigraphy, types of biological information (macrofossils, pollen and spores, charcoal, Protozoa, diatoms, and others), and physical and chemical characteristics (humification, geochemistry, isotopes). Chapter 7 on Autogenic Change covers issues like hydrosere successions and their “reversals”, terrestrialization and the transition to bog, lateral expansion, “mature” peatlands and erosion, “cyclic regeneration”, pattern development, and permafrost formation. Chapter 8 on Allogenic Change discusses the effects of climate change, fire, hydrological changes such as through human impact and sea-level changes, and volcanic influences. The chapter also includes an extensive part on of “climate reconstruction from peat”. Chapter 9 on Peatland-Environment Feedbacks deals with catchment hydrology, water quality, global climate and gas exchange.

The final Part IV *Resource Management* discusses in Chapter 10 values and functions, exploitation, and human impacts, including peat mining, forestry and agriculture, conservation values, “functional” values, and “wise use”. Chapter 11 on Conservation Management and Restoration touches upon the “conflict” between naturalness and diversity conservation and presents management techniques

for disturbed peatlands. Special attention is paid to restoration and rehabilitation. The book ends with 30 pages of references and an extensive index.

And now my judgement of the book, starting with the positive points:

- The idea to describe peatlands and their environment dialectically as the dynamic results of autogenic and allogenic developments is brilliant and inspiring.
- The book is up-to-date with respect to coverage of recent developments in peatland science. As such it is an important reference book.
- The book presents a multitude of facts.
- The book gets its examples from all over the world (although obviously the (many) areas where Dan has worked prevail).

Peatlands and Environmental Change is therefore a nice book for, as the publisher writes on the back cover, "specialists who wish to broaden their knowledge", as there is nothing more up-to-date available in English at the moment.

The book has, however, many negative sides:

- The chapters 1.2, 1.3, and 1.4 dealing with terms and classification are so confusing and inconsistent, that they should better remain unread.
- Much of the book focuses on bogs; the highly diverse fen types are treated in a simplistic, stepmotherly fashion.
- The book contains ridiculously much doubt with its copious use of "probably", "perhaps partly", "usually" etc.
- The book presents many facts, and even more references to facts, without contributing to comprehension. The brilliant concept of the book is lost in the chaotic way of presenting anecdotic facts and references without governing vision.

Peatlands and Environmental Change is therefore not at all, as the publisher writes on the back of the book, an „ideal introduction to peatlands for those developing an understanding of these ecosystems”.

The worst, however, is that the book is badly written. I admit that there are some well written parts in the book, but too many sections I had to struggle through, continuously suppressing the urge to scratch and stripe. The books sins systematically against almost all guidelines given in Strunk's „Elements of Style” (www.bartleby.com/141/index.html) such as

- Avoid vague and unspecific words
- Keep related words together
- Use definite, specific, concrete, simple language
- Omit needless words
- Express coordinate ideas in similar form
- Avoid a succession of loose sentences

Either the book has been written too quickly, or the text editor has been sleeping, or both. In any case, the book has provided for my seminar on scientific writing many examples how *not* to write.

Hans Joosten

Delbaere, B. 2002. Biodiversity Indicators and Monitoring: Moving towards implementation - Tilburg, European Centre for Nature Conservation, 2002. - (ECNC Technical report series) 7.- € (excl. mailing)

This publication aims at providing a brief state of affairs of biodiversity indicators and monitoring at the various geographical levels. It illustrates that a lot has happened already and that it is time to implement most of what is available to date, so as to respond to the urgent policy requirements on assessing effectiveness of biodiversity policies around the globe. This is in line with the overall message from the CBD's 6th Conference of the Parties (CBD/COP6): it is time to move from policy dialogue to implementing what has been agreed.

For a FREE download (pdf) surf to: <http://www.ecnc.nl/doc/ecnc/publicat/biodindi.html>

Demircan, S., Marushevsky, G., Van Westrienen, R., Kostyushin, V. (eds.) 2002. Black Sea Wetlands Conservation Priorities

Priorities for Black Sea Wetland Conservation were developed, discussed and adopted at the International workshops "The Importance of the Black Sea Wetlands, Especially for for Migratory Waterbirds" and "Conservation, Restoration and Wise-Use of Wetlands Resources along the Black Sea Coast", held in February and September, 2000 in Odessa (Ukraine). The publication includes descriptions of the current status of the Black Sea wetlands and their conservation, and priorities for their conservation with recommended actions.

Marushevsky, G. (ed.) 2002. Directory of Azov-Black Sea Wetlands. 229 pages, 80 maps, 6 figures, 97 tables.

The Directory includes information on 94 wetlands with a total area of 2,482,963 ha: Bulgaria (10 wetlands), Georgia (11), Romania (9), Russia (10), Turkey (5), Ukraine (37) as well as Moldova (12).

Thirty-two wetlands, totalling 1,945,298 ha, are of international importance and are designated as Ramsar sites. The Directory consists of an introduction and a series of national reports. Each report begins with an introduction that includes general information about the country (area, population, neighbouring countries, climate, biogeographical zoning, administrative division, etc.), a general description of coastal wetlands (location, area, status, protected areas, table of occurrence of threatened taxa in key sites, etc.), information on legislative and institutional bases for wetland conservation and research as well as organisations involved with wetlands.

The site descriptions include basic information on location, area, attitude, wetland type, physical

features (geology, geomorphology and soils; hydrology; water quality; climate), principal vegetation, conservation measures taken and proposed, land use and possible changes in land use, disturbances and threats, economic and social values, fauna (including tables on waterbird populations), special floristic values, research facilities, public awareness and education, and criteria for inclusion.

In the coming weeks both above publications will be available to download from www.wetlands.org.

Irish Peatland Conservation Council 2002. Celebrating Boglands. IPCC Dublin, 120 p., EURO 37 including postage and packing.

Beautiful anthology of artist impressions, photos, pictures, prose, science, poetry, and music inspired by the boglands and their conservation. Published by the Irish Peatland Conservation Council to commemorate the 20th Anniversary of the Save the Bogs Campaign. IPCC: „Reading the book one is struck by the immensity of the journey, we as a nation have taken in just 20 years. We have come from a time and culture in which we looked on bogs from afar - wastelands to be dug, drained, burned, and planted, to a time and culture in which we have gotten off the fence and waded in for a close look. And discovered places that although, to paraphrase one contributor, are empty of agricultural animals or people, are nonetheless filled with life; the stealthy sundew silently stealing insects, the magnanimous Sphagnum moss absorbing the deluges of rain, the arguing frogs. And so the story of bogs in Ireland has mirrored many other changes over the last century. Life has changed utterly, and few would want to return to those days of hardship. This book is also about the heartland that could have been lost along with the hardship. But the words of the Dutch man - Matthijs Schouten – “Mongan bog will survive, were to be harbingers of 20 years of halting the wanton and indiscriminate destruction of virtually our only pieces of wilderness.” See also a selected story of the young Polly Devlin elsewhere in this Newsletter.

Available from IPCC, 119 Capel Street, Dublin 1, Ireland: bogs@ipcc.net.

Masing, V. & Jüssi, F. 2002. Wild flowers of Estonia. Tartu, Bibliotheca Baltica, 2002. Hardcover., 248 p. with 113 colour pictures. 28,00 Euro.

A book by our late honorary member Viktor Masing with pictures of Fred Jüssi. Translated by Saima Gordejeva from Estonian. In English with an index of Latin, Estonian, Finnish, Swedish, and German names.

Napreenko, M. 2002. Flora i rastitel'nost' verkhovykh bolot Kaliningradskoj Oblasti. (Flora and vegetation of bogs in the Kaliningrad Region of Russia). Summary of a PhD thesis. Kaliningrad State University, Kaliningrad, 38 p.

Describes the history of the study of mires in the Russian Kaliningrad region, where (in the former German East-Prussia) from the middle of the 19th century to the first decennia of the 20th century many classical studies were undertaken. Presents an improved subdivision of the Region into 4 mire districts: coastal lowlands, glacier basin plains, river valleys, and terminal moraine hills. Analyses the characteristics of the bog flora: 70 % of the vascular plant species has a boreal distribution, 7 % a temperate; 80% of the moss species is pan-boreal but a remarkable 10 % is amphi-oceanic. Describes the vegetation both with the Russian „dominant” method as well as with the Braun-Blanquet method and finds a large similarity between the main units of both systems. This is ascribed to the species-poverty of the bog communities, which enlarges the importance of dominant species in the B.-B. approach. The different approaches (floristics in B.-B., physiognomy in the „dominant” method) lead to much less correspondence between the syntaxa of higher ranks. In the 20th century the Kaliningrad bogs have suffered severely from drainage, afforestation, fire, and human occupation leading to a decrease of hydrophilic communities and the invasion of new species. Also new bog species have appeared, e.g. *Sphagnum molle* and *Erica tetralix*, the latter species being found in Russia only in one of the Kaliningrad bogs.

Although the current state of nature is generally unfavourable, eight (rather) large bogs with surrounding forests in different districts are still in near-pristine condition. These areas must form the cores of the ecological network that has to be set up in the region. All of them have been included by Botch and Masing (1973, 1979) in the list selected for protection in the USSR, but an effective protection of the bogs has not yet been established.

An important inventory, especially as the surrounding Baltic states and Poland will be included in the European Union soon, which – as is already visible – will direct peat extraction to the vulnerable and unprotected bogs of the Kaliningrad enclave. See also the contribution on Zehlau in this newsletter.

For more information: Maxim Napreenko: icid0988@email.albertina.ru

Scheffer, B. (ed.) 2002. 125 Jahre Moor- und Bodenforschung in Bremen. Arbeitshefte Boden 2002/3, Hannover, 142 p.

Overview of the 125 year history and present research themes of the Bodentechnologisches Institut Bremen, formerly the Moorversuchstation, where a.o. C.A. Weber was active. Deals with peatland

agriculture, conservation, soil conditions and nutrient availability. For more information:
Bernhard Scheffer: Bernhard.scheffer@bgr.de

Schouwenaars, J.M., Esselink, H., Lamers, L.P.M. & Van der Molen, P.C. 2002. Ontwikkelingen en herstel van hoogveen-systemen. Bestaande kennis en benodigd onderzoek. Rapport EC-LNV 2002/084 O, Expertisecentrum LNV, Wageningen, 186 p.

Review of existing knowledge and required research with respect to the restoration of bog ecosystems. Covers the history of Dutch bogs, vegetation development and indicators for successful regeneration, hydrological aspects, including hydraulic properties of degraded peatlands and the role of soil and water quality. A special chapter is devoted to the fauna of virgin bog mires and degraded bog remnants. Priority questions for restoration research are formulated.

For more information: Gert-Jan van Duinen: duinen@sci.kun.nl

Talbot, S.S. & Murray, D.F. (eds.) 2002. Proceedings of the first international Conservation of Arctic Flora and Fauna (CAFF) Group workshop. CAFF Technical Report No 10. ArtDatabanken / Swedish Species Information Centre SLU / Swedish University of Agricultural Sciences, Uppsala.

The 80 page report include some 15 papers, including on the history and role of the CAFF Flora Group, floristic definition of the Arctic, the Pan-Arctic Flora initiative, the Circumpolar Vegetation Mapping (CVMP) project, cooperation with the International Tundra Experiment (ITEX), circumpolar bryophyte and lichen checklist, and circumpolar flora monitoring. The report further provides several conclusions and recommendations regarding future circumpolar flora conservation work.

Circumpolar cooperation of arctic botanists is essential to achieve a unified approach to conservation, protection, and sustainable use of arctic ecosystems and its resources. Cooperation from all eight arctic countries avoids replication of effort and permits realistic assessment of the conservation requirements for Arctic vegetation and flora.

Hard copies of the report can be obtained free of charge from the CAFF International Secretariat, Hafnarstraeti 97, 600 Akureyri, Iceland. Email: caff@caff.is

The report is further available online under www.caff.is/sidur/uploads/CAFFFloraGroupUppsalaReport1-sb.pdf

Tomassen, H. & Smolders, F. (ed.) 2002. Onderzoek ten behoeve van herstel en beheer van Nederlandse hoogvenen. Eindrapportage 1998 – 2001. Rapport EC-LNV 2002/139, Expertisecentrum LNV, Wageningen, 186 p.

Report of the results of recent research into bog restoration in the Netherlands. Deals with the influence of high atmospheric nitrogen deposition, water and substrate quality with special attention to the importance of CO₂ for Sphagnum growth and of CH₄ generation for the formation of floating Sphagnum mats, the role of water levels and storage coefficients (and their determination), a comparison of the fauna of Irish, Estonian and Dutch bog (remnants). All these aspects are discussed with respect to their consequences for management. Priorities for further research are formulated.

For more information: Gert-Jan van Duinen: duinen@sci.kun.nl

Van de Griendt, H.F. 2002. Uit Sphagnum geboren. Een eeuw turfstrooiselindustrie in Nederland 1882 – 1983. (Born out of Sphagnum. One century peat litter industry in the Netherlands 1882 – 1983). Stichting Zuidelijk Historisch Contact, Tilburg, 314 p. In Dutch with extensive summaries in English and German. EURO 30. Available from Zuidelijk Historisch Contact: zhc@signifikant.nl

The history of the Dutch peat moss litter industry, described by Henk van de Griendt (1925), member of the Van de Griendt dynasty that already for 5 generations (since 1853) is a key player in the peat industry in the Netherlands and Europe. The Van de Griendt family founded in total 15 peat oriented enterprises, 8 of them with „Griendtsveen” in their name („veen” in Dutch meaning both peat and peatland) and was strongly involved in 8 others. The „Griendtsveen” companies have cut-over 8,592 ha of peatland in the Netherlands, Germany, and the United Kingdom. Conservationists will meet in the book several well known „battle fields”, including the Groote Peel (Netherlands), Thorne and Hatfield Moors (England), and Burns Bog (Canada). An interesting account „from the inside” on this branch, that developed from producing litter for horse stables to growing media for professional horticulture and that since its early beginnings had a strong international orientation. The author had an extraordinary collection of sources at his disposal, including private accounts of his family and unique archives of the associated companies. For an „organic” account the book is remarkably balanced and frank in describing the developments, the cartel building, and competition during the mentioned century, up into the 1990s.

In Dutch geology the „Formation of Griendtsveen” became the name of all occurrences of peat and organic sediments. „It is a cause for proud that the name Griendtsveen has in this way been placed on record for the future. It has, however, to be remarked that the same Comments (on the Geological Overview Maps of the Netherlands 1975) end with noticing that the occurrences are getting continuously smaller as a consequence of peat extraction and that only protected peatlands will remain in the long run. As the economic formation Griendtsveen has contributed considerably to this extraction, next to proud some modesty is not out of place.” (p. 183).

Two topical illustrations of the international involvement of Griendtsveen: In September 1895 Peter-Jan Smeets, supervisor of the Griendtsveen works in the Peel (NL), visited Thorne Moors (UK, see Newsletter 2002-3) to advise on its drainage. In his account he wrote: „As far as the situation in the peatland this year is concerned: that is as good as is possible with such forced drainage. After another year of working in which as many trenches and ditches as possible have to be deepened (for drainage), the terrain will have subsided to such an extent, that all canals can be dug without fear for collapse, and peat extraction can be started everywhere. ... That until now the costs of extraction and consequently the peat are much more than in Holland – even in relation to the higher wages that have to be paid in England - is largely to be blamed to the English labourers that are not acquainted with the work. Also their unwillingness in regard to all new ways of working plays not a small part. The latter will – I think – change automatically after a few years, especially when initially for all different works some Dutch workers, who know the job, will be used. If one sees that it has to, can be done in that way and a wage can be earned, one will follow spontaneously.”

On August 1900 this same Smeets went to Torreblanca, a peatland at the Spanish east coast not far from Valencia to investigate the peat occurrences there. Prat de Cabanes / Torreblanca with 4 m of organic deposits over 10 km² was until recently one of the major peat extraction sites of Spain with a annual extraction of over 10,000 tonnes in the 1990s (www.igme.es/internet/publicaciones/panorama/turba.htm). Currently still two peat extraction concessions, of which one of 60 ha is still active, are resting on the area. 812 ha is nowadays a Ramsar site (www.mma.es/cop8/docs/Prat.htm). It was visited by one of the excursions of the Ramsar 2002 CoP8 meeting in Valencia.

The Epilogue of the book gives a summary of recent developments and an outlook for the future and is therefore particularly interesting for mire conservationists:

„In the twenty years that have passed since the last Dutch moss litter factories have closed down in 1983, radical changes have been taking place in the world of peat. On several locations where in former days moss litter factories were standing, now the

production of composts is taking place. The large demand for peat products for making potting soils and substrates has remained. As peat extraction has stopped in the Netherlands, the potting soil industry is completely depending on import of raw materials. With respect to the countries from where peat is provided, a continuing shift has been taking place. Western Europe, and especially Germany, gradually lost its leading position as peat supplier. The cause is not only a decrease in peat stocks. The using up of available peat stocks has in the past decennia accelerated as a consequence of political decision making in countries like Germany and the United Kingdom. Under the influence of nature conservationists and environmental groups, such a restrictions are imposed on the peat companies in these countries, that only this makes it virtually impossible to keep production up to the mark.

Consequently large possibilities arose for the Baltic countries and to a lesser extent also for Ireland. Especially after the fall of the Berlin Wall in 1989 the Eastern European countries started to get involved in these developments. For the time being Germany remains important as a supplier of frozen black peat. From the Baltic countries, Estonia shows the most rapid growth.

Many Dutch and German peat extraction companies, but also peat import firms, have meanwhile constituted interests in the Baltic States. Because of the large stocks that these countries have at their disposal, the government still has the possibility to keep extensive virgin peatlands intact and simultaneously to stimulate peat extraction elsewhere in the economic interest of the country. This possibility is used in a qualified and intelligent way. For now the import from the Baltic States almost exclusively concerns light peat types, that are supplied primarily in bulk, but sometimes also in bales. A tendency is however already visible, that also black peat products find their way to Western Europe. This supply takes place almost completely by ship and consequently numerous coasters are involved in the transport.

Already in an early stage the need for specialised discharging-berths, where the products could be unloaded, stored, and processed, arose. ... It was ... Griendtsveen that ... opened the first real peat terminal in the Netherlands in Moerdijk in 1992. ... Currently in the Netherlands five peat terminals are in use, whereas additionally in various harbours transshipment facilities have been constructed.

The changing peat flows are not only caused by the peatlands in the traditional peat regions getting depleted. In addition an important potting soil industry is coming up in the Mediterranean countries. Although this industry will try to use local raw materials as much as possible, a large demand for import of peat products will remain. Also for that purpose transport by ship shall be important.

These developments, accompanied by the increasing demands to the quality of raw materials and final product, make it difficult for individual potting soil

companies to satisfy all requirements. This leads to a process of cooperation within the branch with the basic idea to jointly standing stronger in the competitive battle on a national and international level. Under the umbrella of (the German) company Klassmann-Deilmann a number of Dutch potting soil companies were brought together. Of more recent date is the foundation of the Tref B.V. (1999) that bundles the production and sales of the Griendtsveen, De Baat, and Dega companies. In 2001 also Veldkamp joined this combination. ... Tref currently has processing plants in Schoonebeek, Coevorden, Delft, and Moerdijk (NL) and peat extraction sites in Germany, Estonia, and Kaliningrad. Van Buuren retaliated by purchasing successively Euroveen, Bol, Vriezenveen B.V., and Haasnoot. A further scale extension cannot be excluded, so that it might be expected, that the Netherlands with its strong potting soil industry will maintain its second position - after Germany - as peat consumer in Europe and will be able to respond adequately to future new developments.

Just like Sphagnum dying from below, loosening itself from its roots, and continuing to grow on top, we have witnessed the end of the moss litter industry, that rooted in the bogs of the Netherlands, but now continues to grow in the potting soil branch, that feeds itself with raw materials imported from elsewhere." (translated by HJ)

The Undiscovered Country: Wildlife of the Scottish Flows is an award-winning video filmed almost entirely by the RSPB's film unit and includes some breathtaking footage of black-throated diver, greenshank, common scoter, stunning scenery and

startling skies. This is a must-see of our natural heritage and we very much hope that it will encourage many more people to travel north. Copies are available (£9.99 plus £2.00 P&P) from: RSPB Scotland, Etive House, Beechwood Park, Inverness, IV2 3BW, tel: 01463 715000 or e-mail: nsro@rspb.co.uk.

Proposed Framework for a Wetland Inventory, Assessment & Monitoring System in Malaysia - Workshop Proceedings

Wetlands International – Malaysia Programme has proceedings on line from its April 18th & 19th workshop in Kuala Lumpur. The workshop participants worked toward developing a proposed framework for a Wetland Inventory, Assessment and Monitoring System in Malaysia. The proceedings can be found at: <www.wetlands.org/awi/Malaysia.htm> For further information send an e-mail to: muhammad@wip.nasionet.net

Proceedings of the International workshop on Wetland Conservation and Need for International Cooperation in Northeast Asia

This workshop was held on 24-25 May 2002 at Pusan National University in Busan, Korea. The book includes nine scientific and case study papers. More information about the softcover 120-page book is available from the Dept. of Biology, Pusan National University, [gjoo@pusan.ac.kr](mailto:gjjoo@pusan.ac.kr).

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UPCOMING EVENTS

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

Mangrove Workshop in Ecological Economics

2-12 January 2003, Palawan, Philippines

For more information visit the workshop webpage at <http://www.uvm.edu/~gundiee/philippines/Philippines.html>

Conservation of Wetlands - Conflicts or Compromise

16-19 January 2003, Hambanthota, Sri Lanka

For more information visit the conference webpage at http://www.port.ac.uk/departments/economics/cema/re/darwin_first_call.htm

International Symposium: State of the Art in Vegetation Monitoring Approaches

24-26 March 2003, Birmensdorf, Switzerland

For more information see previous Newsletter or Download the **NEW** symposium programme at: www.imcg.net/wsl03.pdf or visit www.wsl.ch/land/monitoring/welcome-en.ehtml

Contact: Elizabeth Feldmeyer-Christe: elizabeth.feldmeyer@wsl.ch

American Wetlands Campaign Biennial Conference

1-4 May 2003, Minneapolis, Minnesota

Theme of the conference: Bogs, Playas, Pools: Protect America's Unique Wetlands! The conference is designed for volunteer and professional wetland stewards interested in learning more about wetlands and how to conserve them. The conference offers three tracks: education and outreach, wetland science, and wetland conservation policy. For more information www.iwla.org/sos/awm/conference/

2003 Mangrove 2003: Connecting research and participative management of estuaries and mangroves

20-24 May, Salvador de Bahia, Brazil

For further information surf to: <http://www.mangrove2003.ufba.br>

Annual Meeting of the Society of Wetland Scientists

8-13 June 2003, New Orleans, USA

The SWS meeting will focus on the need to understand the interdisciplinary scientific needs and innovative approaches for the stewardship of wetland ecosystems. What approaches are needed to meet the challenges of management across diverse and changing geographical landscapes, socio-political boundaries, scientific disciplines, and varying time scales? The conference will encourage symposia that

present interdisciplinary, integrated approaches and technologies for wetland science, assessment, conservation, rehabilitation, and management to sustain wetlands in diverse environments across different continental regions of the world. For further information contact <http://www.sws.org/>

IAVS Symposium Water Resources and Vegetation

8-14 June 2003, 46th, Napoli, Italy

For further information contact <http://www.iavs.org/>

Ecohydrological Processes in northern Wetlands

30 June - 4 July 2003, Tallin, Estonia

This International Conference and Educational Workshop will be held at the Institute of Ecology, Tallinn Pedagogical University, Estonia.

For more information contact Elve Lode: ICEWetland@eco.edu.ee or visit: www.shef.ac.uk/geography/research/wetlands/ICE2003.html

BES Winter meeting,: Applying the long-term perspective to contemporary problems

9 - 11 September 2003, Manchester, UK

The main theme of this special session organised by the Mire Research Group of the British Ecological Society is to use the unique potential of the wetland archive (or of course longer term monitoring sites) to provide a longer term view of the origins / consequences / severity / treatment of contemporary issues in wetlands. For more information contact Deborah Pearce: dpearce@brooks.ac.uk.

International Conference on Eco-Restoration

23-30 September 2003, New Delhi, India

The main objectives of the Conference are:

1. To review the existing knowledge on ecological, socio-economic and environmental dimensions of degradation of land and water resources, especially in the developing countries;
2. To document ecorestoration approaches with case studies in different countries
3. To review the impacts of government policies on ecorestoration of degraded environments;
4. To provide a sound scientific basis for developing appropriate policy framework for ecorestoration in developing countries
5. To identify areas of interdisciplinary research relevant to ecorestoration of land and water resources.

For more information contact the webpage at <http://www.nieindia.org/conferences.htm>