



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

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

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

Editorial

This is the first issue of the IMCG Newsletter that is for a large part distributed electronically. As previous ones, this issue may also be found on the new IMCG web page. Those who did not yet fill out the registration form sent with the previous Newsletter are urged to do so as soon as possible and contact Jan Sliva (sliva@weihenstephan.de).

The last page of this IMCG Newsletter features a registration form for the next biennial IMCG meeting in France 2002, where we hope to meet many IMCG members.

We have received many news items to be included from all over the world. We thank all contributors for the interesting read produced by all together. Our editing has been as rigorous as always and any mistakes are entirely our responsibility. Please keep sending in material on anything happening regarding mires. The deadline for the next IMCG Newsletter is 15 September 2001. Also for information or other things, contact us at the IMCG Secretariat. Address updates should be send to Jan Sliva. In the meantime, keep an eye on the IMCG web-site: <http://www.imcg.net>

John Couwenberg & Hans Joosten, The IMCG Secretariat
Botanical Institute, Grimmerstr. 88, D-17487 Greifswald (Germany)
fax: +49 3834 864114; e-mail: joosten@uni-greifswald.de

Contents:

Editorial	1
IMCG Executive Committee Meeting	2
Preliminary Agenda IMCG Executive Committee meeting	4
Meeting on the IPS-IMCG Wise Use Guidelines	5
Meeting between IMCG, IPS, Wetlands International	6
The Global Peatlands Initiative (GPI)	7
The Joint Role of the IPS and the IMCG in promoting Conservation and Wise Use of Mires and Peatlands	8
Ramsar Convention STRP Meeting	9
Symposium on "Mountain Living Waters"	10
IMCG workshop on peatland regionality	10
New on the IMCG Website: Guidelines for identifying mires of international biodiversity value	11
New on the IMCG Website: Red lists of European wetland species	12
IMCG Resolutions Québec	12
IMCG Resolution for British Columbia	13
IMCG Resolution for South Africa	14
The karst fens of South Africa	15
Peatlands & People - the local perspective	17
Habitats Directive: more time wasted for Europe's endangered species	18
Raised Bog SAC's in the UK	19
Peat Alternatives in the UK: Interim Results from Peat-free Trials	20
B&Q to go Peat Free	22
B&Q Peat Policy	23
Regional News	24
New and recent Journals/Newsletters/Books/Reports	31
UPCOMING EVENTS	34
IMCG SYMPOSIUM FRANCE 2002	35

IMCG Executive Committee Meeting

Wageningen, The Netherlands, 29 March 2001

The IMCG Executive Committee Meeting, held a meeting in Wageningen, The Netherlands on 29 March 2001, that was attended by several other IMCG members.

The following major issues were discussed and decided (abbreviations: IMCG-EC: IMCG Executive Committee; IMCG-MB: IMCG Main Board):

1. The minutes of the December 2000 virtual meeting were accepted without changes.

2. Executive Committee and Chairmanship:

After some exchange of thoughts and standpoints and with the proposal to proceed without chairman until France 2002, the situation was left as it is for the time being.

The next IMCG-EC meeting will be held 4 August 2001 in Tamsweg Austria.

3. Internal Organisation

Philippe Julve will register IMCG as soon as possible. In absence of a chosen chairman, Jan Sliva will act as founding chairman.

Possible changes in the constitution of IMCG will have to wait for the congress in France 2002.

A final version of the address list has been compiled by Jan Sliva. Currently 447 persons and 10 organisations are on the IMCG Mailing-List, of which only 65 are registered members and 2 supporters (who registered in the short application-window just before and during the Congress in Québec 2000). The registration procedure has been re-opened (an application form was sent with the IMCG Newsletter and can be found on the IMCG webpage) and thus far response has been good. Jan will collect registrations and regularly send the IMCG-MB a list of applicants for acceptance.

IMCG has now a new webpage (www.imcg.net), located in Kiel and maintained by Michael Trepel. The old website automatically links to the new one. Michael Trepel is applauded for the work done and his dedication. Links to the old site should be updated as soon as possible. A call for input is made, especially to send in reports on projects and any other mire related information.

The Newsletter will continue to appear appr. every 3 months. Information is easily gathered and response has been good. Future distribution will for a large part be electronic. People are asked to think about sending information CoPies to non-registered members and contact Jan Sliva with proposals.

Ton Damman had started conceptualising an IMCG Working Plan. Hans presents some questions and first tentative answers to work on. Tania will take the lead #in further development of a vision, policy and strategy and will circulate a first draft before the Tamsweg meeting 4 August 2001. Faizal Parish

pointed at the current value of IMCG lying in networking, promotion, and workshop activities, not in on the ground projects.

4. Contacts with other organisations

Wetlands International:

Doug Taylor as the new WI Specialist Group Co-ordinator has made clear that the Terms of Reference (ToR), containing 'demands' of WI to their Specialist Groups (which IMCG already fulfils or which do not pose large problems) will be changed into a Memorandum of Understanding, allowing IMCG to put their wishes to WI. Our wishes towards WI would include: to support IMCG meetings, to promote the involvement of IMCG, to support IMCG publications, to promote government contacts for IMCG, to involve IMCG in WI positions on peatland matters (policy, information, consulting). The IMCG-EC will follow up on this matter.

The Habitat Forum:

The Habitat Forum is a federation of NGOs in Europe to put pressure on the European Commission in relation to the Habitat Directive and Natura 2000. The European Commission discusses only via the Forum, not with single NGOs. Richard Lindsay is no longer involved. Philippe wishes to hand over to someone else. Jan Sliva will contact Belgian members to follow up Philippe. Until then Philippe will continue his involvement.

Ramsar STRP:

IMCG representation in the Scientific and Technical Review Panel (STRP) of Ramsar is currently provided by Richard Lindsay, Andreas Grünig, and Michael Steiner (on behalf of the Austrian government). The position and possibilities of Andreas are still uncertain. Jan Sliva will be able to fill his position when it is necessary. Richard Lindsay will be leaving STRP after finishing of the Guidelines for the Identification and Designation of Peatlands as Ramsar sites. Richard will try and be in Spain at the next Ramsar Conference of Parties (CoP) as well.

26 - 29 June 2001 there will be a STRP Peat Working Group meeting to review the Draft Guidelines for the Identification and Designation of Peatlands as Ramsar sites by Doug Taylor and Scott Frazier. Richard will attend this meeting. The Guidelines are aimed to be put at the CoP in Spain. After comments from the Ramsar bureau and the Canadian Government, a revised draft has been circulated recently. (see also elsewhere in this Newsletter [eds].)

The current Wageningen Meeting will not be an official STRP Peat Working Group Meeting, but it

will be a chance for those (or several of those) involved to discuss progress.

IUCN:

Hans will contact the new IUCN Ecosystem Working Group Chairman Van Asperen about the offer of Ed Maltby (previous chairman) to join the Working Group.

SWS:

There has been no new information of Barry Warner on cooperation between SWS and IMCG

5. Current issues

Peat: eco-labelling and renewable fuel:

For an update on this issue reference to the IMCG Newsletter 2001/1 is made. The prospects are good that products containing peat will be excluded from eco-labelling. Lobby of government officials and the EU competent bodies is necessary (see Newsletter). Contacts have been made also with the European Parliament. Producers that currently have EU eco-labelled products should be mobilised. (for an update on the issue see elsewhere in this Newsletter [eds.]

GAPP:

The Ramsar Global Action Plan for Peatlands has gone to the Contracting Parties for comment with 15 Nov 2000 as a deadline. The STRP will assist in the rephrasing of the document. A new version will be available in June 2001.

6. Projects

Conference Kushiro Japan 1996 proceedings:

Richard has currently received the majority of the papers. He is still waiting for papers from Romania and the Ukraine (two papers) which were promised but have not materialised. The Japanese have a number of papers and Richard is trying to sort out what the situation is about these. The idea is that the Proceedings will be published in Japan. Richard intends to send out suggested corrections within the next month, or comments on the revised 2nd versions received

The webpage should include information on the contents and availability of the proceedings of the previous meetings. Hans Joosten will contact Michael Trepel on this issue.

Conference Quebec 2000 proceedings:

There has been no new information from Barry Warner. Jan will chase him. Hans has received the British Columbia and the South Africa resolution drawn up in Quebec and will take care that they will be sent to the relevant institutions.

Field symposium, congress and conference in France 2002:

Reference is made to the IMCG Newsletter 2001/1. Currently, plans are to hold the event 10-22 July 2002

with an option of 3 extra days. The second French National Wetland Action Plan will enter into force this year and will provide a good organisational backbone for the IMCG event. The excursion is being planned and might accommodate up to 100 people (2 busses). The symposium and congress will be held after the excursion in Paris. Philippe will make information available. (see elsewhere in this Newsletter [eds.]

Field symposium, congress and conference in South Africa 2004:

Jan Sliva will stay in close contact with Piet Louis Grundling about the organisation of this event. Probable date would be February/March 2004. Special attention should be paid to funding possibilities. These include personal as well as organisational funding. Jan Sliva may organise a field trip in his field work area in Botswana, either as part of the event or as a pre/post excursion.

Classification and Terminology Project, incl. the Tamsweg workshop:

Jan Sliva has taken over the co-ordination of the Greifswald Group (Hans Joosten & John Couwenberg). Jan will do the job as part of his habilitation thesis and he will make a project draft / working plan available on the website. The terminology will remain the responsibility of Ron Hofstetter.

In August 2001 a Workshop on regionality will be organised as part of the classification project by Michael Steiner in Tamsweg Austria. For information reference is made to the IMCG Newsletter 2001/1. (see also elsewhere in this Newsletter [eds.]) Michael Steiner and Tania Minaeva are currently also working on a Prodrum of mire plant communities.

Central European Peatland Project incl. European Red Lists

The closing workshop of the CEPP project will be held in April 2001 in Lapanina in Estonia. Henk Zingstra will be asked to provide a review article for the Newsletter and the Website.

For the project, Thomas Heinicke and Colin Bonfield (Greifswald University) have compiled a database with data on occurrence and red list status in all European countries for plant and animal species. Hans Joosten will ensure that the database is put on the website. (see elsewhere in this Newsletter [eds.]

European Mires Book

Progress on the European Mires Book has been slow. Funding is still sought to speed things up. Aim is to finish the project (incl publication) before France 2002. Different opinions still exist on whether to include a list of (most) important peatland sites. The decision will be left to the respective authors and might be published separately (as a shadow list) possibly only on the web or as a CD-rom.

Mire species lists

As opposed to the Holarctic, the tropics and southern hemisphere pose a larger problem to get a complete list. The idea to extend the list essentially makes it a wetland species list. For each country/ region species should then be specifically marked as occurring in peatlands/ mires. Philippe will make a call for input on the website and for the Newsletter.

Global Peat Initiative

A discussion on the Global Peat Initiative will be held Saturday afternoon. An information sheet is available. (see also elsewhere in this Newsletter [eds.])

UNEP-GEF peat project

An information sheet is distributed and the role of IMCG discussed. A draft proposal of IMCG involvement should be circulated within IMCG in the next couple of weeks and then a half page with 6-7 dotpoints should be submitted via Faizal. Tania will write something down.

Specialist groups

this point is covered under 3.6

Wise Use Guidelines

Discussion starts at 14.00 h; Free exchange of thoughts (no minutes made).

7. Any other business

Karen Jenderedjian attended the Ramsar meeting on Mountain Wetlands held 26/27 March 2001 (see elsewhere in this Newsletter [eds.]). These wetlands should/shall be better represented under the Ramsar convention. This presents an opportunity to increase attention also for mountain peatlands. A draft resolution will be presented to IMCG for comment.

Faizal pointed to the Ramsar River Basin Group, he will write an article for the next IMCG Newsletter on this issue and possible involvement/feedback of IMCG

there being no other business, the meeting was closed.

Preliminary Agenda IMCG Executive Committee meeting

Tamsweg, Austria, 4 August 2001

1. Formal issues

- 1.1 Chairmanship of the meeting
- 1.2 Agenda
- 1.3 Minutes of the previous meeting

2. Internal Organisation

- 2.1 Official registration: progress
- 2.2 Membership: status and progress, incl. discussion on criteria for benefactors
- 2.3 Secretariat and website
- 2.4 Newsletter: production and distribution
- 2.5 IMCG Policy Plan 2001 – 2004
- 2.6 Working Plan 2001 – 2002
- 2.7 Preparation of the Congress 2002:
 - 2.7.1 Organisation of the discussion on the constitution
 - 2.7.2 Election of Main Board, Executive Board and Chairman
 - 2.7.3 Resolution Preparation process

3. Contacts with other organisations

- 3.1 Wetlands International
- 3.2 European Habitat Forum
- 3.3 Ramsar STRP
- 3.4 IUCN
- 3.5 SWS

4. Current issues

- 4.1 Peat: eco-labelling and renewable fuel
- 4.2 GAPP
- 4.3 Ramsar Wise Use Guidelines
- 4.4 Criteria for identification of peatlands as Ramsar sites

5. Projects

- 5.1 Conference Kushiro Japan 1996: progress proceedings
- 5.2 Conference Quebec 2000: progress proceedings
- 5.3 Field symposium, congress and conference in France 2002.
- 5.4 Field symposium, congress and conference in South Africa 2004
- 5.5 Classification and Terminology Project
- 5.6 Central European Peatland Project
- 5.7 IMCG European Mires Book
- 5.8 Mire species lists
- 5.9 Global Peat Initiative
- 5.10 UNEP-GEF peat project
- 5.11 Wise Use Guidelines.

6. Any other business

**INTERNATIONAL MIRE
CONSERVATION GROUP**

Meeting on the IPS-IMCG Wise Use Guidelines

Wageningen, The Netherlands, Friday 30 March 2001

by Donal Clarke

Present:

C Rubec. (co-ordinator);

International Mire Conservation Group: H Joosten, K Jenderedjian, A Sirin, T Minayeva, J Sliva, L Papa• kova, J Schulz, P Julve, H Diemont, C MacAlister, J Couwenberg, G-M Steiner, F Parish, R Lindsay, O Bragg;

International Peat Society: G Hood, D Clarke, P Ilnicki, A Shaw, W van Schie, G Caspers, A-J Schilstra, M Brandel, J Rieley, J Päivävanen, T Nyrönen.

Wetlands International: M Silvius, H Zingstra, D Taylor.

The meeting was chaired by Mr Gerry Hood. It took place in the Alterra Research Institute of the University of Wageningen. Dr van de Zande, the Director of the Institute, gave the opening address.

The purpose of the meeting was to consider the draft Wise Use document dated 5 March 2001. The meeting was a continuation of a process begun in Surwold in 1997. It built on the work of the 1999 Freising meeting, meetings in Québec in 2000, and the 2000 Heathrow meeting. There was a general consensus that the document was almost ready. Detailed suggestions for improvement were made during the course of the meeting.

At the Freising and Heathrow meetings there had been talk of a “separate” summary Wise Use paper for “decision makers” and politicians. We (Hans Joosten and myself) had drafted a summary document which was more a reflection of the contents of the main document than a “policy paper”. There was a difference of opinion as to whether we should change the nature of our summary – some wanted a change, others did not. It was agreed that a small group would draw up a separate Wise Use policy document designed for administrators and politicians which would be different from our document. It was agreed that we will meanwhile improve our summary in the same way as we will improve the rest of the document.

A discussion took place on whether the document should be published, and how. It was agreed that, with some editing and improvement, the document

should be published. A discussion took place on the means or channels of publication. It was agreed that the best deal possible should be negotiated, along the following general lines:

- the document should be published on behalf of the IMCG and IPS by a commercial publisher;
- sponsorship would be sought to meet the basic costs of publication;
- editorial control should rest with the IMCG and IPS;
- the type of publisher to be sought would be one who would publish at a lower cost affordable by teachers and students, rather than a prestige publisher interested only in institutes and libraries.

Both the IMCG and IPS representatives noted that each organisation had its own internal processes to follow. The meeting was informed that each organisation had progressed that question of publication in its respective forum.

A timetable was agreed:

17/04/2001: Final deadline for comments in writing to the drafters on the present draft.

15/07/2001: Final version of the document to be available to participants (probably on the website).

01/08/2001: Deadline for comments and suggestions on the final draft. In practice this deadline will probably work out as 1 September.

01/11/2001: Document to be ready for publication.

01/04/2002: Deadline for publication. Earlier in 2002 if possible.

Tribute was paid to Mr Clayton Rubec who has co-ordinated all the IMCG-IPS meetings and without whose unobtrusive skills the consensus achieved would not have been possible.

It was agreed that the IMCG and IPS should continue to meet to progress the range of issues which had been established at the original Surwold meeting.

For more information and the latest draft document surf to: <http://www.mirewiseuse.com>

REGISTER

Please fill out the IMCG registration form.

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

Meeting between IMCG, IPS, Wetlands International

Wageningen, The Netherlands, Saturday 31 March 2001

by Marcel Silvius

On 31 March a meeting was held between IMCG, IPS and Wetlands International, hosted by Alterra in Wageningen, the Netherlands. The meeting dealt with various exciting initiatives:

Wise Use of Peatlands

This meeting followed a meeting held the day before between IMCG and IPS at which they approved a draft document developed between them on a Framework for the Wise Use of Mires and Peatlands. This document is the result of four years of deliberations between these two groups who represent two of the major stakeholder groups (industry and conservationists) in regard to the management and conservation of peatlands and mires. The main target groups of this document are these two stakeholder groups themselves, but it was recognised that the results of their co-operation would be of significant importance to other stakeholders, and therefore further steps would be required to bring this into various relevant policy platforms, such as the Ramsar Convention, the Climate Change Convention and CBD.

Wetlands International proposed that the IMCG and IPS document would be made available by IPS and IMCG as a reference document for the development of Guidelines for the Wise Use of Peatlands for the Ramsar Convention (GWUP). This could provide a useful tool for the implementation of the Global Action Plan for Peatlands (GAPP). One of the action points of the GAPP is actually the development of such guidelines. It was noted that such guidelines would not be prescriptive in nature. They should help to raise awareness on the needs of different stakeholders.

IPS and IMCG stated that they would be very happy to make the document available for this purpose. In order to prepare the GWUP in time for CoP8, it was decided that the current draft or any version which included amendments agreed by IPS/IMCG in their previous meeting could be used at the Ramsar STRP meeting in June 2001. It was further agreed that the process of GWUP development, would be an STRP-lead endeavour, which would require the further involvement of IPS, IMCG and Wetlands International as well as other international partners. (Partners suggested were for instance the International Commission on Irrigation and Drainage, IUCN, WWF, the Intergovernmental Panel on Climate Change, the Working Group of CBD and Climate Change Convention, UNEP, UNDP, World Bank, etc).

In addition, it was noted that it was up to the Ramsar Bureau and STRP to decide on the best way of launching or recommending the GWUP for adoption by the parties, and that in any case where the

adoption of the GAPP would be hampered by the GWUP, the GWUP would be retracted.

Presentations

During the meeting an update was given by Doug Taylor and Jack Rieley on the Development of Guidelines for Designation of Peatlands as Ramsar Sites. Presentations were also given on Peatlands and Agriculture (by Dr Piotr Ilmitchki) and Peatlands and Forestry (Dr Juhani Päävänen). Faizal Parish gave an update on the project on Carbon Storage and Sequestration through Protection and Sustainable Management of Peat Swamp Forests in Indonesia, for which a proposal has been recently submitted to CIDA (Canada). Some videos were shown on Peatlands in Kalimantan, Indonesia (Jack Rieley).

IMCG-IPS policy document on Wise Use of Mires and Peatlands:

During the IMCG-IPS meeting, the previous day, a decision had been made to prepare a separate Wise Use policy document (for policy makers / administrators). A very first draft of this was presented and discussed amongst IPS and IMCG participants.

Global Peatland Initiative

A brief presentation was made by Herbert Diemont on the Global Peatland Initiative. A brief summary of the GPI was provided to all participants as a hand out.

It was noted that the GPI will be administered by Wetlands International, but implemented as a broad partnership programme. A Steering Committee will be established during the inception, and both representatives of IPS and IMCG will be invited.

It was mentioned that the GPI will be particularly supportive of projects/ideas/programmes that will develop win-win scenarios for conservation and sustainable use, actions which support international conventions or policy frameworks, and initiatives which have a local ownership but are partnership driven.

The GPI will predominantly provide seed money or co-financing, and one of its aims is to facilitate other donors or funding for wise use and conservation of peatlands.

For further details, see next item in this Newsletter.

Next Steps

WI will circulate to IPS and IMCG members, the draft Guidelines for the Wise Use of Peatlands (proposed Ramsar document), and the GPI documentation, following formal DGIS approval

WI will finalise the Ramsar additional guidance for designation of peatlands document, jointly with IPS and IMCG, for submission to STRP

The Global Peatlands Initiative (GPI)

by Marcel Silvius

In April 2001, Wetlands International and Alterra announced at the IPS-IMCG meeting in Wageningen the start of the Global Peatland Initiative, which was developed in close cooperation with IUCN-Netherlands Committee. The programme's aim is to support and enhance the participation of countries in transition and developing countries in international conservation and wise use of peatlands. The GPI supports and complements the *Global Action Plan for Peatlands* (GAPP). The current start of the programme has received financial support from the Ministry of Foreign Affairs of the Netherlands to an amount of about US\$ 650,000 for the first year (April 2001 - July 2002).

The GPI is focused on:

- conservation and restoration of peatlands, and
- integrated development planning of peat-based agriculture, forestry and industry, within an ecosystem-based approach.

The GPI specifically targets developing countries and countries in transition (the latter mostly in Eastern Europe). It will support innovative methods towards global land-use planning and decision making, co-operation between sectors, stakeholder participation, valuation and certification, management auditing systems and the implementation of new approaches to secure wise use of peatlands.

Objectives

- Support and enhance the participation of developing/transition countries in the global peatland initiative on the future use of all peatlands in the world.
- Identify future sectoral needs for peatland and reconstruction opportunities in developing/transition countries.
- Contribute to the IMCG/IPS global guidelines and prepare national and sector guidelines for the wise use of peatlands.

- Raise awareness on the functions and benefits of peatlands, and assess the total (public) and direct values of peatlands.
- Identify, in co-operation with the banking sector, global and national transfer mechanisms to provide peatland owners and other stakeholders with income from public values.
- Assess C&I and (local) standards of performance for certification of sustainable peatland management for various sectors using peatland.
- Provide a management format and auditing tools for immediate protection of peat areas of global importance.
- Provide grants to support the management of some of the most threatened peat ecosystems in S.E.Asia and Eastern Europe.
- Identify key peatland areas and sectoral needs in S. America, Africa and China.

Call for proposals

The GPI aims at providing an umbrella for the many relevant peatland conservation and wise use promoting projects and activities which take place around the world. The idea behind this is that a world wide initiative may have a better chance at influencing agendas of major conventions, multilateral agencies and countries, than the separate smaller projects. ("The sum of the parts is greater than the whole"). The GPI will select a number of activities and projects from around the world for financial support, particularly with seed money. Proposals from the non-profit sector are therefore welcome. Grants will generally be smaller than US\$ 30,000. Proposals will be selected and judged by the GPI Steering Committee, which includes representatives of Wetlands International, Alterra, IUCN-NC, IMCG and IPS.

For additional information (such as proposal formats, etc), please contact:

Marcel Silvius silvius@wetlands.agro.nl
Herbert Diemont w.h.diemont@ibn.dlo.nl



**INTERNATIONAL MIRE
CONSERVATION GROUP**

The Joint Role of the International Peat Society and the International Mire Conservation Group in promoting Conservation and Wise Use of Mires and Peatlands Globally

by Jack Rieley

Following the very successful activities at San José, Costa Rica in May 1999, where several IPS and IMCG members attended the 13th Global Biodiversity Forum and the subsequent 7th Ramsar Conference of Parties (CoP7), the International Peat Society and International Mire Conservation Group were invited to become observer organisation on the Scientific, Technical and Review Panel (STRP) of the Ramsar Convention. In doing so the Ramsar Convention recognises the global perspective and expertise, on all aspects of mires and peatlands, which both organisations possess and greatly enhances their esteem. This accolade resulted from the hard work of IPS and IMCG with the unstinting support of Clayton Rubec of Canada. They all worked extremely hard along with others, to develop the initial draft of the *Global Action Plan for Peatlands* that was accepted by CoP7 in its Recommendation 7.1. It was also a response to the new and positive interest that Ramsar has been taking in peatlands globally since CoP6 that was held in Brisbane in 1996. Jack Rieley was appointed by the IPS Executive Board to represent the IPS at Ramsar STRP meetings and IMCG initially appointed Rob Stoneman to represent their interests. The STRP is the advisory committee of the Ramsar Bureau and Convention on all aspects of its work. It converts the decisions taken at CoPs into actions and programmes in order to achieve the Ramsar objectives as specified in its triennial work plans. Peatlands globally are now receiving much greater recognition than before as wetlands of major importance and this is reflected in the work of the Ramsar Convention. The principal current responsibilities of the STRP in respect of peatlands is to facilitate evaluation of the Global Action Plan for Peatlands (GAPP) and to:

- i) Prepare additional guidelines for the designation of peatlands as wetlands of international importance (i.e. highlight specific features of peatlands in order to increase the number of peatlands on the Ramsar List);
- ii) Prepare further national and regional sustainable development, wise use and management guidelines for peatlands;
- iii) Promote initiatives to transfer peatland development and restoration technology to developing nations and countries with economies in transition;
- iv) Develop standardized and globally applicable classification of peatland types and their ecological characteristics;
- v) Review the extent and quality of peatland survey around the world and identify those areas in need of further inventory.

STRP established a Peatlands Working Group at its first meeting after CoP7 with the following terms of reference:

1. Co-ordinate comments from STRP, International Organisation Partners, and any interested Contracting Parties into the further development of the draft Global Action Plan for Peatlands (see Recommendation 7.1) by end October 1999.
2. Finalize the Global Action Plan for Peatlands (GAPP) at the GAPP Discussion Group meeting in Freising, Germany (30 November – 1 December 1999) prior to urgent transmission to the 24th meeting of the Ramsar Standing Committee for endorsement.
3. Use the Freising meeting to review progress and set out requirements to make substantive headway within each of the eight ‘opportunities’ outlined in the GAPP and report findings to the 9th STRP meeting (June 2000).

And in particular:

4. With the support of interested Contracting Parties, develop guidelines for the designation of peatlands as Ramsar sites drawing on workshop discussions at Freising (November 1999) and Quebec (August 2000) and comments from the STRP. Guidelines should be developed by June 2001 for consideration by the Standing Committee later that year, and adoption by CoP8 in 2002.
5. Work with the Inventory Working Group to develop procedures for the identification and review of peatland inventory. In close conjunction with the Wetlands International ‘GROWI – 2’ project, a project concept should be devised for consideration and endorsement at the 9th STRP meeting (June 2000).

Obviously, there are overlaps of interests and responsibilities to many of the other STRP Working Groups, especially, Climate Change, Wetland Inventory, Wetland Restoration and Wetland Management.

Since the first STRP and Peatlands Working Group meetings of June 1999 much has been achieved and some things have changed. The PWG was always very small, consisting initially only of the three co-chairs – Jack Rieley, Rob Stoneman and Nick Davidson, the last of whom at the time was the Wetlands International representative on the STRP. Now there are new members, mostly from Wetlands International in the form of Doug Taylor (who replaced Nick when he became Ramsar Deputy Secretary General), Henk Zingstra and Scott Frazier. Tobias Salathe of the Ramsar Bureau also attends meetings, replacing Rebecca D’Cruz who returned to Malaysia when her contract ended.

Much of the effort of the Peatlands Working Group has been devoted to a few key items:

1. Evaluation and updating of the GAPP. Following its formal adoption by Ramsar Standing Committee in December 1999 the GAPP was sent

- out to all Contracting parties for comment and suggestions. About 20 responses were received and a final version of the GAPP will be placed before the next STRP meeting in June 2001. Subsequently, it will be re-submitted to Standing Committee for endorsement to be placed on the Agenda of CoP8 that will be held in Spain in November 2002 when, hopefully, it will be accepted and implemented by Contracting Parties.
2. Preparation of 'Guidelines for the Designation of Peatlands as Wetlands of International Importance' (i.e. the Ramsar List of Sites). The objective of this activity is to highlight the special attributes, features and functions of peatlands that make them very special wetlands. As a result it is the intention to inform CPs and others about the special role that peatlands play globally, regionally and nationally so that a wider selection of types from every biogeographical zone can be represented on the Ramsar List.
 3. Proposing means of delivering the GAPP, especially by distribution, acceptance and implementation of "The Wise Use Guidelines for Mires and Peatlands" that is being formulated jointly by IPS and IMCG. This benchmark document will become a major reference on the nature, origin, extent, values and functions of

mires and peatlands, conflicts regarding their use and a framework for their 'wise use'.

Most items in the Terms of Reference have been addressed successfully. Ramsar Contracting Parties (CPs), International Organisation Partners (IOPs) and other interested parties were contacted for comments and feedback relating to the GAPP. The proposed changes have also been circulated to all members of the Working Groups that met in Freising, Quebec and Wageningen to discuss the GAPP at earlier stages of its formulation. All information is being assessed and decisions on final changes will form a major part of the PWG business at its meeting on 26th June 2001. At the same meeting the additional guidance to CPs on the designation of mires and peatlands as wetlands of international will also be discussed and finalized. Both IPS and IMCG are playing an extremely important role in the formulation of these new policies, actions and guidance on mires and peatlands globally and will be major catalysts in and monitors of their implementation.

Jack Rieley is IPS Vice President and Executive Board Member, IPS Observer on the Ramsar Convention Scientific and Technical Review Panel, and member of the IMCG

Ramsar Convention STRP Meeting

Gland, Switzerland, June 2001

The 10th meeting of the Ramsar Convention Scientific and Technical Review Panel (STRP) will be held 27-29 June in Gland Switzerland. On the day before, the STRP Working Groups will meet. Among these the Peatlands Working Group, which will discuss the following agenda:

1. Opening of meeting and noting those present.
 2. Agreement of agenda and any additional items.
 3. Review of tasks allocated to STRP by CoP7 with regards to peatlands.
 4. Global Action Plan for Peatlands (GAPP). (IPS/IMCG)
 5. Guidelines for the Identification of Peatlands and Mires as Wetlands of International Importance. (IPS/IMCG/WI)
 6. Peatland specific aspects of the Ramsar Draft Strategic Plan 2003-2008
- Items 4, 5 and 6 are highest priority, paperwork will be circulated on these in advance of the meeting so that changes can be incorporated at the Peatlands Working Group. They have to be finalised and signed off at the STRP meeting.
7. Wise Use of Mires and Peatlands (IPS/IMCG)
 8. Statement on Wise Use of Mires and Peatlands (IPS/IMCG)

9. Guidelines for Integrating Wetland Conservation and Wise Use into Peatland Management (WI)

Items 7,8 and 9 are being prepared by IPS, IMCG and WI and are possible means of delivering key aspects of the GAPP. Update reports on the progress/status of these will be given at the PWG

10. Collaboration with and input to/from other STRP Working Groups.
 - (i) Wetlands Inventory
 - (ii) Wetland Restoration
 - (iii) Site Management Planning Guidelines
 - (iv) Climate Change
11. Any other relevant business
12. Close of meeting

The General STRP meeting that follows will prepare for the 8th Ramsar Conference of Parties meeting (CoP8) in Spain next year.

STRP products should be ready for submission to the next (26th) Meeting of the Standing Committee (3-7 December 2001) not later than 30 September 2001.

The next and final opportunity to finalise inputs for CoP8 will be 31 March 2002, subject to the approval of the Standing Committee, for review by a meeting of the Standing Committee Subgroup on CoP8, scheduled for 6-8 May 2002. CoP8 dates are 18-26 November 2002, Valencia, Spain.

Symposium on "Mountain Living Waters"

Evian, France, 26-27 March 2001

by Karen Jenderedjian

To celebrate the 30th Anniversary of the Ramsar Convention and the 40th Anniversary of WWF, in the context of WWF's Living Waters Campaign, a two-day Symposium on "Mountain Living Waters" was organised in Evian, France, 26-27 March 2001 to prepare a draft plan for the protection of mountain wetlands of international importance.

Around 35 participants from 15 countries, Group Danone, Eaux Minerales Evian, WWF International, WWF France, and IUCN shared information and experiences on the themes *Physical characteristics of mountain wetlands, Environmental, economic and social issues of mountain wetlands, Case studies of pilot sites located in various mountainous regions of the world*. The presentations showed the wide diversity of mountain wetlands in the world (Scandinavian and Alpine glaciers, mountain peatlands in France, tropical mountain cloud forest areas, Armenia's mountain wetlands and lakes,

Neotropical high mountain wetlands, high altitude wetlands of Labakh Himalaya, crater lakes of Cameroon), and the diversity of problems as well.

As mentioned in the objectives of the Symposium, it is hoped that the Contracting Parties of the Ramsar Convention will adopt a specific resolution encouraging the designation of mountain wetlands as Ramsar sites. These wetlands would incorporate hydrological systems, such as glacial areas, peatlands and mountain lakes. The draft Resolution entitled "Enhancing the Wise Use and Conservation on Mountain Wetlands" will be submitted to the Ramsar CoP8 (Spain, 2002) for further adoption by the Contracting Parties.

The Symposium was financed by the Ramsar Evian Project "Caring for water resources and water quality", sponsored by the Danone Group, and with the participation of the World Conservation Union.

IMCG workshop on peatland regionality

4th August – 8th August 2001, Tamsweg/Austria

There is still a very limited number of places open for people who want to participate in the workshop on mire regionality (4 – 8 August 2001, Tamsweg, Austria). The group has to be restricted to 15 participants, because there is not more place available. Those who want to join should contact Michael Steiner as soon as possible, because arrangements have to be made for the transport to and from Tamsweg and for the accommodation.

Material on mire regionality and further information will be sent to those who register.

One of the reasons to choose the city of Tamsweg for this workshop is that in the surrounding area we find the best examples of Alpine mires in Austria. This

will enable ample opportunity for outdoor discussions – an important tradition of IMCG.

The costs for bed and breakfast per night will be 300 Austrian Schillings (= • 21,80) in a double room and 350 ATS (= 25,44 •) in a single room, the average price for a dinner will be 100 ATS (= 7,27 •). There will be no additional costs and no paying in advance.

Address:

Ao. Univ. Prof. Dr. Gert Michael Steiner, Institute of Ecology and Conservation Biology of the Vienna University, Althanstr. 14, A-1090 Vienna, Austria.
Tel.: +431 4277 54372, Fax: +431 4277 9542.
gmst@pflaphy.pph.univie.ac.at

New on the IMCG Website: Guidelines for identifying mires of international biodiversity value

by Hans Joosten

In the framework of the European Mires Book and the Central European Peatland Project, we have developed a discussion document on criteria for identifying mires and peatlands of international biodiversity conservation value.

Following is a summary of the larger document that can be found on the IMCG webpage under the documents heading:

<http://www.imcg.net/docum/criteria.htm>

The value of a peatland or a peatland related phenomenon (a species, a vegetation type, a relief, a process, etc.) for biodiversity conservation is determined by both naturalness and biodiversity. With regard to *naturalness*, four main types of peatlands can be discerned:

- actively peat accumulating ecosystems (mires),
- peatlands, where peat is oxidizing or eroding, but that are not being nor have been extracted,
- peatlands, where peat has been or is being removed actively by extraction,
- former peatlands.

A similar one-dimensional hierarchical table cannot be made for *biodiversity*, because biodiversity value depends on various factors, including the spatial resolution of observation (do I compare sites, regions, countries?), the property (forms, colours, genetics?), the accuracy of distinction (types or subtypes, species or subspecies), and the level of complexity (am I looking at pieces or mosaics, i.e. at individuals, populations, communities, systems?).

General rules for *assessing biodiversity value* of peatlands are:

1. Rareness is the most important indicator of biodiversity. Uniqueness, endemism, and representativeness/typicalness are directly related to rareness.
2. Rareness on one scale does not imply rareness on another scale. Things can be locally rare, regionally abundant, and globally again rare, and the other way around.
3. Phenomena that are rare in a larger area (e.g. in a country) are more valuable than phenomena that are rare in a smaller area (e.g. in a municipality).
4. Distinct phenomena are more valuable than less distinct phenomena (all other things being equal): a genetically distinct taxon or ecosystem type is more valuable than one with many close relatives, a clearly patterned concentric bog more than a vaguely patterned one.
5. Peatland size is both a direct (as larger sites are rarer) and an indirect indicator of biodiversity (as larger sites may contain more unknown and rare phenomena).
6. All these rules apply both for processes and for "patterns". As processes cannot be observed directly, "patterns" (species, vegetation,

microrelief, peat deposits, etc.) are to be used as indicators for processes.

7. A special biodiversity value of peatlands is their archive value. Indicators are: age, palaeo-ecological record, peat thickness, and (horizontal and vertical) variation in stratigraphy.
8. All phenomena should be taken into account in the biodiversity assessment of peatlands: species (sometimes even individuals, e.g. "the oldest / largest bog pine of Europe"), micro- and macrorelief patterns, plant communities, mire massives, processes etc.
9. Every good typology of peatlands for conservation should be detailed and based on a combination of various criteria, incl. hydrogenetic processes, trophic and base-saturation conditions, macro- and microrelief, floristics, vegetation, physiognomy, and stratigraphy.
10. Scientific type localities are always of international importance.
11. With respect to phenomena of equal importance, actual values are more valuable than potential ones.
12. Potential values are of international importance, if the realization of the potential would contribute to the reinstatement or the origin of phenomena of international importance.

A phenomenon (pattern, process, system) is of international biodiversity value, when it is rare on an international scale. For some species groups, the available information on their distribution enables an objective *assessment of international importance*. For many peatland phenomena (communities, micro- and macrotopes, etc.), however, such information is still lacking and "best professional judgement" has to be applied.

Practical rules to assess the international importance of species and habitat types include:

1. All following sites are of international importance: Ramsar sites, sites that satisfy the Ramsar criteria, UNESCO World Heritage Sites, Areas of Special Conservation Interest according to the Bern Convention, reserves belonging to the European Network of Biogenetic Reserves, reserves having the European Diploma of Protected Areas, Special Protection Areas of the EU Birds Directive, Special Areas of Conservation of the EU Habitat Directive, sites that contribute significantly to the maintenance of a Annex I habitat type of the EU Habitat Directive, sites that contribute significantly to the maintenance of biological diversity within the biogeographic region or regions.
2. All sites that support a substantial population of a taxon mentioned in one of the following documents are of international importance: the Red List of the IUCN, Appendix I and II of

CITES, Appendix I and II of the Bonn Convention, Appendix I and II of the Bern Convention, Annex I of the EU Birds Directive, Annex II and IV of the EU Habitat Directive (see e.g. RL Databases, next Newsletter-item).

3. All sites that support a substantial population of a taxon, that occurs on the national Red Lists of the country are of international importance (to protect the distributional pattern of the taxon) (see e.g. RL Databases, next Newsletter-item).
4. The IUCN criteria for Red List taxa can also be applied to other phenomena (e.g. communities, surface patterns, relief elements, archive value).
5. All endemic taxa and other endemic phenomena, i.e. whose distribution is limited to one country or a limited group of countries, are of international importance. In case the phenomenon is not threatened, only a selection of mires/peatlands where it occurs are of international importance.
6. A site has to reach the qualifying standard in only one category to be of international importance.

The following rules are useful for the *selection, installment, and management* of conservation areas:

1. Reserves should be capable of being effectively conserved and managed.

2. The long-term preservation of valuable mire phenomena requires the protection of the whole mire massive.
3. Wherever possible, conservation sites should contain complete watersheds.
4. The conservation of mire elements and mire types "in perpetuity" requires that several duplicates are protected in various areas.
5. Some peatland phenomena (surface patterns, populations) can only be retained if the sites are large enough or form a sufficiently dense network. This may translate into very large areas and/or a large number of reserves.
6. Research and educational value, cultural importance, recreation, and sustainable use can support the selection.
7. For the sake of naturalness, biodiversity should be conserved by doing as little as possible: "doing nothing" is better than "doing once", which is again better than "doing continually". The introduction of continuous active management is not acceptable, except when the global survival of phenomena is at stake.
8. As threat changes in time, attention should also be paid to the conservation of non-threatened phenomena.

New on the IMCG Website: Red lists of European wetland species

by Thomas Heinicke & Hans Joosten

The occurrence of rare and threatened species provides important incentives for the protection of mires and peatlands. Most countries list these species in Red Data Books.

To make this information more easily accessible and to provide a framework for international comparison, we have compiled electronic databases (in MS-Excel 97 format) of all (available) national red data lists for all countries of Europe and of similar listings in international conventions and agreements. Where possible, we included information on the distribution (occurrence per country) of the species.

The data thus not only inform on the status of a species in one country, but also in a wider context. In this way, the distributional pattern, the threat situation in other countries, in Europe as a whole, and on a world-wide scale can be taken into account when assessing the conservational value of mires and peatlands.

The databases for plant species are based on the mire plant species list of Philippe Julve (<http://perso.wanadoo.fr/philippe.julve/imcgproj.htm>) and are enlarged with other wetland plant species, that may occur in mires and peatlands.

With respect to animals (vertebrates), it is much more difficult to select explicit mire or wetland species. Therefore all (breeding) birds, mammals, amphibians and reptiles of Europe have been listed. The user has to decide whether in his country mires/peatlands are important for the conservation of these animals. For birds the frequency of occurrence (limit > 10 % of the population) has been presented. This is also planned for the other groups.

The red-list databases can be downloaded from the IMCG webpage under the projects heading:
<http://www.imcg.net/imcgproj.htm#a10>

IMCG Resolutions Québec

The IMCG Congress in Québec (August 2000) adopted two resolutions with respect to mire conservation in British Columbia and South Africa.

These resolutions are currently being forwarded to the relevant authorities in the respective countries.

IMCG Resolution for British Columbia

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 9th biennial Symposium in Canada in August 2000, looking at the particular issues of Canadian mire conservation. The IMCG Field Symposium 2000 was generously hosted by the British Columbia Ministry of Forests. This enabled the group to visit and to study coastal temperate rainforest within the Prince Rupert Forest Region and the Queen Charlotte Islands. As a result of our experiences, we have the following observations which we hope will be of assistance to the Ministry.

1. The type of peatland/forest complex characteristic of this area survives intact nowhere else in the northern hemisphere, so that the coastal temperate rainforest of northern British Columbia is an internationally important example of a globally rare biome.
2. We are encouraged by the way in which the results of research have been applied to forest management over the last 20 years. We are particularly impressed by the interdisciplinary and inter-agency approach adopted in the latest phase of research, known as HyP³. It is notable that data are beginning to emerge which may indicate that there are functional relationships between peatland and forest, operating both spatially and temporally; although expansion of the sCoPe of research will be necessary to elucidate the underlying processes.
3. We are also encouraged by existing evidence of the commitment to research over timescales compatible with those of ecological successions and environmental change, and are confident that the Ministry shares our view that highest priority should be given to continuation of a comprehensive research programme beyond the end of the current phase of HyP³ funding in 2001.
4. We applaud the Ministry's approach to protecting and sustaining the biodiversity of the area, and encourage continued implementation of the Protected Areas Strategy. In view of the special and incompletely understood functional relationships between peatland and forest, we urge the Ministry to ensure that the suite of Protected Areas should include representative examples of lowland productive old growth forest and peatlands.
5. We also urge the Ministry to continue to develop applications of changing scientific knowledge to commercial forestry practice, so that these forests can be managed for maintenance of maximum possible biodiversity and ecological sustainability in conjunction with logging.

The legislator and the conservation biologist

A man in a hot air balloon realised he was lost. He reduced altitude and spotted a woman below. He descended a bit more and shouted, "Excuse me, can you help me? I promised a friend I would meet him an hour ago, but I don't know where I am".

The woman below replied, "You are in a hot air balloon hovering approximately 30 feet above Alkali Desert Scrub habitat, 2.7 miles west of the Colorado River near one of the remnant populations and spawning grounds of the Razorback Sucker."

"You must be a conservation biologist," said the balloonist.

"I am," replied the woman, "How did you know?"

"Well," answered the balloonist, "everything you told me is technically correct, but I have no idea what to make of your information, and the fact is I am still lost. Frankly, you've not been much help so far".

The woman below responded, "You must be a legislator".

"I am", replied the balloonist, "but how did you know?"

"Well," said the woman, "you don't know where you are or where you are going. You have risen to where you are due to a large quantity of hot air. You made a promise to someone that you have no idea how to keep, and you expect me to solve your problem, but you really aren't interested in the information I'm providing. The fact is you are in exactly the same situation you were in before we met, but now, somehow, it's my fault."

IMCG Resolution for South Africa

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 9th biennial Symposium in Canada in August 2000, looking at the particular issues of South African mire conservation. During the symposium, considerable discussion and debate was devoted to the issues of mire conservation in other countries represented at the meeting. A number of resolutions were drawn up for the countries represented, as a means of indicating various ways in which each national government could make a positive contribution to the internationally important issue of mire protection.

We, the IMCG:

WARMLY WELCOME the fact that South Africa has established the Peat Working Group to co-ordinate governmental involvement in peatland related issues and is pleased to learn that the Department of Agriculture is supporting peatland inventory research;

NOTE, however, that the majority of mire systems currently under protection in South Africa are those in the coastal peatlands in the Greater St. Lucia Wetland Park;

ACKNOWLEDGE that sixteen RAMSAR sites (of which 3 incorporate peatlands) have been designated in South Africa;

UNDERSTAND that the activities of small scale agriculture on mires and the activities of the peat industry are currently expanding within South Africa.

The IMCG consequently:

urge the South African government, in the light of Recommendation 7.1 of the Ramsar Convention, that the current peatland inventory work be extended to incorporate a full inventory of South African mire ecosystems, quantifying both their values and current threats;

consider it important that protection be extended to incorporate other mire types including Highveld and other coastal fen and river valley mires, thus responding to Contracting Part recognition that, within the Ramsar Convention, mires and peatlands are an under-represented type;

ask that, in the light of Ramsar Recommendation 6.1, 7.1 and the draft Global Action Plan for Peatlands (GAPP), representatives of the full diversity of mire types be considered for protection in all of the peat eco-regions (geobotanical regions) of South Africa;

urge the South African Government to consider listing further peatland sites under the Ramsar Convention;

suggest that consideration be given to development of a monitoring/implementation programme for the conservation and utilisation of South African mires;

encourage the South African Government to support the work of the Peat Working Group in the development and implementation of a peatland conservation programme.

The IMCG network would be pleased to help in any way it can to assist the South African Government in implementing a wider programme of mire monitoring and conservation. It looks forward to hearing of any progress towards such a programme at the next IMCG symposium in 2002, to be held in France, and perhaps seeing the development of such work for itself when it visits South Africa for its Biennial Symposium in 2004.

Québec City, Canada, August 2000



The karst fens of South Africa

compiled by Piet-Louis Grundling*

The dolomitic peatland systems (karst fens) of the Northwest Province in South Africa, which include among others the Molopo, Malamani, Schoonspruit and Gerhard Minnebron, are unique in South Africa, particularly with respect to the number of endemic and endangered faunal species which they support, as well as the associated peat deposits.

Geology

Peatlands of the central and western Highveld of South Africa are underlain by the dolomites of the Malmani Lithological Group. The surface geomorphological features of the dolomites can often be related to the subsurface water-bearing characteristics (e.g. the valleys of surface drainage, in which the peatlands occur and coincide with karstified dolomite, Bredenkamp 1995). Most of the springs and seeps feeding the peatlands originate on or near the contacts of dykes that transect the dolomite. Some of these springs are also associated with dolomitic contacts with the Black Reef Lithological Formation and contacts between the Monte Christo/Oaktree or Eccles/Lyttelton Lithological Formations (Bredenkamp 1995).

These different formations are characterised by a difference in permeability and storage capability of groundwater, which relates to four types of karst morphology. Two of these, the Plateau and Vaal River types, are the most important from a groundwater point of view (Bredenkamp, 1995) and will thus also influence the distribution of the peatlands in terms of the underlying dolomitic related geology.

Peatland characterisation

Peatlands on the karst landscape can all be classified as fens with pH's varying between 6.8 - 7.2 and are dominated by a dense mixture of *Phragmites australis* and *Carex* species. These mires vary in extent from 12 ha to 2000 ha and in thickness from 1 m to 5.5 m. They usually contain a yellow fibrous peat (Von Post's H 2-4) that becomes more blackish and finer (Von Post's H 6-8) as it grades into a organic clay towards the bottom of the peat layer. It is estimated from these preliminary studies, that the Karst fens contains about 80 million m³ of peat; about 25 % of the total inferred resource of South African peat.

Peat accumulation on the Karst landscape originated about 11 000 years ago (Table 1) during the last Ice

Age during the transition from the Pleistocene to the Holocene and continues until the present at an average rate of 0.5 mm/year.

Peat exploitation

At present all South Africa's peat exploitation operations (5 active peat mines) are located in the karst fens. About 70 000 m³ of peat are utilised in South Africa per year or to put it in perspective: 5 ha of peatland is destroyed every year to mine peat at an average thickness of 1.5 m. The majority of these peat mines (60 %) are located in the Vaal River Catchment, one of the most water stressed rivers in South Africa

Mushroom growers in South Africa use about 42 000 m³ moist peat per annum. This industry is dependent on peat as casing material, as no other cost effective alternative exists at present. Mushroom growers are employing directly and indirectly, about 6000 people and nurseries indirectly upto 20 000 people. Nurseries use between 30 000 - 40 000 m³ of moist peat per annum, but depend on peat to a lesser degree than the mushroom industry, because alternatives such as bark, compost and mushroom compost waste are freely available locally.

Habitat, biodiversity and conservation

Degradation of these dolomitic systems has been a concern of the Department of Environmental Affairs and Tourism for some time and as a result, a multidisciplinary investigation of the fish, aquatic invertebrates and ostracods was sponsored by the Department. The research was aimed at developing guidelines for the conservation and management of these unique wetland systems. This forms an integral part of South Africa's obligations in terms of the Ramsar Convention which include among others:

1. Stemming the loss of wetlands
2. Promoting the wise use of all wetlands
3. Promoting the implementation of obligations under the Convention

These systems are currently under threat as a result of increasing demands for water in the region as well as other developments. Water diversion and abstraction have meant that less water is available to the aquatic ecosystem downstream of the eyes. This has resulted in degradation of the wetland systems, and a loss of habitat which is threatening the survival of the many endemic and endangered species which occur there.

Table 1: Peat age, accumulation rates and thickness increments for selected Highveld peatlands.

Mire	Age (¹⁴ C yrs B.P.)	Accum. rate (mm/year)	Thickness Increment (m)	Analysis no / * Source
Schoonspruit	1440 ± 20	0.73	1.05	Pta-7968
Gerhard Minnebron	11 310 ± 110*	0.49	5.5	Pta-6367 *Smuts, 1997
Tarlton South	7120 ± 80	0.66	4.75	Pta-7948
Rietvlei	1290*	0.18*	0.23	*Scott and Vogel, 1983
Rietvlei	7130*	0.18*	1.3	*Scott and Vogel, 1983

The occurrence of certain fish species in some of these wetlands serves as a good example. Results from both the morphological and genetic studies of the fish species suggest that the indigenous cichlid populations inhabiting these dolomitic wetlands are unique, with a number of populations having differentiated to the extent where they may be considered as separate species. One species in particular, *Barbus cf. brevipinnis* (type of ghielientjie) is endemic, for example, to the Molopo and is currently under high risk of extinction due to loss of habitat as a result of reduced flows to the wetland area. With limited sheltered areas in the Molopo eye itself, this species is easy prey for the ever increasing exotic bass population and as a result, the species is now limited to the wetland area downstream of the eye. Since the survival of this species depends not only on the maintenance of the reed wetland downstream of the eye, but also on the presence of surface pools of water, it is essential that not only an adequate, but also a continuous supply of water to this area is ensured.

The results of the aquatic invertebrate survey of these dolomitic wetlands produced several new distribution records for South Africa and also 21 new species to science.

The results of the ostracod (including crustaceans) survey from these systems showed that of all the species found, 30% are new to southern Africa and one species is new to science.

Management issues

After having recognised the uniqueness and conservation importance of these dolomitic systems, discussions were held on 31 January 1994 with delegates from the Department of Water Affairs and Forestry, the JLB Smith Institute of Ichthyology and the then Transvaal Department of Nature and Environmental Conservation in order to highlight management problems and to develop a strategy for the implementation of the recommendations as outlined in the report.

It appears that there has been no follow up action since then, the result of which has been the continued degradation of these systems. Investigations by the national Department of Environmental Affairs and Tourism into the status of the Molopo wetland highlighted a number of concerns with regard to the steady deterioration of this and other dolomitic systems. They emphasised the urgent need for management plans to conserve these wetlands. The intention of such management plans will be to maintain the ecosystem functioning of the wetlands and to restore their ecological integrity.

It was recognised that an urgent meeting of the relevant regional and central government authorities was necessary in order to try and establish an action plan aimed at sustainable water resource development and effective conservation of these dolomitic systems. In addition, the current land-use practices in and around these systems were also cause for

concern. Increasing ground water and peat abstraction, irrigation demands, pollution, overgrazing, and recreation requirements, together with poor agricultural practices and the lack of conservation measures will all ultimately result in the ecological degradation of these unique systems. Any envisaged action plan for their conservation should incorporate therefore the principles of Integrated Environmental Management (IEM). It was proposed that the role players meet in order to discuss the issues and develop a framework for the implementation of strategies which would ensure that these unique dolomitic systems are conserved.

Considering both the government's obligations in terms of the Ramsar Convention and the unique and ecologically special character of these dolomitic systems, it was felt that guidelines need to be developed for the conservation and management of the dolomitic wetlands. Unfortunately nothing is happening and none of these decisions are being implemented at present.

Conclusion

It is expected that most of these dolomitic wetland systems will contain some peat, most of which are expected to be desiccated through water abstraction, draining, peat mining, cultivation and grazing. Maintenance of these mires is essential in order to ensure a long-term sustainable supply of good quality water to some of South Africa's main rivers. In addition, these peatlands are key components in terms of the biodiversity of the Highveld landscape.

From a biodiversity perspective, these relatively high altitude peatlands represent a unique class of wetlands, not only in southern Africa, but also internationally. It is therefore important that their value is recognised, both hydrologically and biologically, and that the necessary attention is given to their long-term conservation.

Can the international environmental society afford to lose these unique ecosystems? More to the point: Can we as members of the IMCG allow the loss of these remarkable mires?

Most of the text of this article were directly taken from Grundling and Marneweck, 1999.

References

- Bredenkamp D.B. 1995. Dolomitic Groundwater resources of the Republic of South Africa.
- Grundling, P. & Marneweck, G.C. 1999. Mapping, characterisation and monitoring of Highveld peatlands. WCS Report no. 28/99.
- Scott, L and Vogel, J. C. 1983. Late Quaternary Pollen Profile from the Transvaal Highveld, South Africa. South Africa Journal of Science, 79: 266-272.
- Smuts, W.J. 1997. Characteristics of South Africa peats and their potential exploitation. PhD Dissertation. University of Pretoria.

Please contact Piet-Louis Grundling for more details at peatland@mweb.co.za / + 2712 808 5342 or Gary Marneweck at wetland@smarnet.co.za or +27 12 361 8856

Peatlands & People - the local perspective

by Richard Lindsay & Tomoko Morita

Much of what IMCG does in terms of conservation is based on activities and opinions of specialists - people who have worked in peatland ecology for many years, and who base their actions or proposals on what they have learned as professional (or semi-professional) conservation specialists. Despite all our best efforts, it is still true, however, that the peatland habitat is not as widely appreciated or understood as, for example, tropical forests, or coral reefs, by the vast majority of people who share this planet. We are specialists, and as such, it is possible for us to become rather too wrapped up in our own specialist world. It is therefore a good thing if, from time to time, we hear the voice of someone from outside our own guild of specialists - the voice of an ordinary citizen who has put their energies into protecting a peatland site. To her it is not a resource statistic, or an item within an inventory. To her it is a very special place that deserves to be passed on to future generations to enjoy as she has been able to enjoy it. She has helped to mobilise local people to stand up for something that they love, and it does us all good to see the work of conservation carried out from another perspective. She described this work to the conference delegates at the Quebec 2000 conference. This is her story....

My name is Tomoko Morita. I am a little surprised to be standing here today. I am not an ecology expert like you, but simply a Japanese housewife and mother of three children.

As we all know, there are many difficulties in solving environmental problems. I would like to tell you how my experiences have convinced me that networking with other groups is one key to overcoming these difficulties. The first of my experiences, relating to recycling, helped me to see how it may be possible to find solutions to another important environmental issue - the saving of Naka-ikemi Peatland.

During the heyday of rapid growth in Japan during the 1980s, resources were thrown away without thought. Around this time, many mothers began to become concerned about this wasteful approach, and wanted their children to realise the value of natural resources. Milk cartons, for example, are made from pure pulp, yet were used once then thrown away. A housewife named Mrs. Hatsumi Hirai began a recycling scheme that met huge opposition from commercial interests, yet stimulated enormous interest from housewives across Japan. Not only did Mrs. Hirai provide advice to housewives faced with opposition to recycling, she also established an extremely effective network which spread like wildfire throughout Japan. Eventually the National Government was forced to enact a law called "Promotion of Separated Trash and the Recycling of Containers and Packaging".

During the time I was involved in this movement, the Naka-ikemi Peatland area in Tsuruga City was faced with the threat of exploitation. One of the things that

grew out of the recycling network was a network of ecological groups, and, through this, the recycling network established links with the "Save Naka-ikemi" groups. As soon as I became involved in the issue, I realised that the "Save Naka-ikemi" groups were fighting in isolation from the citizens of Tsuruga City, although it was obvious that they had strong ties with many experts.

People wishing to save natural habitats from exploitation are scattered throughout Japan, but the problem is that no local conservation group is likely to be able to organise more than 1,000 to 10,000 people. If, instead, it were possible to link people throughout the country and perhaps bring them together, the possibility exists to share common problems and arrive at solutions. In the autumn of 1998, I therefore discussed the experience of the "milk-carton campaign", and suggested that a national meeting be held in Tsuruga City with the theme of "Save Naka-ikemi and the Wetlands of Japan". In June 1999, this conference was held under the auspices of the Japan Wetlands Network (JAWAN), and many prominent people came to the Naka-ikemi site from all over Japan. Importantly, a large number of people from Tsuruga City also attended the Conference.

Around the same time, the story of Naka-ikemi was presented to the 13th Global Biodiversity Forum held in Costa Rica in association with the 7th Ramsar Conference of Parties. As a result of this presentation, a substantial level of international support for the conservation of Naka-ikemi led to letters being sent to the developers, Osaka Gas Company, and to the Japanese Government. Three months later, in September 1999, we were able to hold an international Symposium also sponsored by JAWAN. A number of international specialists came to Naka-ikemi to see the site, and to take part in the Symposium.

So now we have an international network helping us, and we can see how this pressure really shook the developer. At the end of September 1999, Osaka Gas Company publicly announced that they had decided to postpone development of the natural gas storage area at Naka-ikemi for 10 years. The threat has not yet gone away, but at least the site still survives for the moment.

In conclusion, we have to continue our efforts. Our objective should be to expand the network, but we need to remain flexible in order to unite everyone. We should not only send out appeals to the global network, but also listen to other local groups and help them too. It's also very important to discuss these things with our children, as well as altering our own lifestyles. Together, we hope to learn how peatlands play an important role in the protection and maintenance of the global ecosystem and climate. We need an educational approach and therefore must

cultivate a closer connection with teachers. That's why in the spring of 2000 we established the Japan Peatlands Conservation Council (JPCC). We hope to encourage people to decide on a new lifestyle that considers their impact on the environment. If we agree that all living creatures, including human beings, are given life for the benefit of the greater

natural world, then everyone would feel more responsible for their own lives. Such an attitude in people would surely alter the minds of the developers, who have always given top priority to maximal exploitation. I truly believe in this, and will continue my efforts for as long as I am able.

Habitats Directive: more time wasted for Europe's endangered species

from the WWF European Policy Office

Background

EU Member states are 3 years late in proposing lists of sites to be protected under Habitats Directive - the adoption of the list of sites of Community importance for the establishment of the European ecological network, known as Natura 2000, continue to be delayed - dead line was June 1998.

Further to the adoption of the new regulation on Structural Funds for the period 2000-2006, the European Commission and the European Parliament stressed in March 2000 the 'conditionality clause' between the payment of Structural Funds and the implementation of EU environmental law, in particular the Habitats Directive.

In October 2000 member states adopted a calendar of expert meetings in 2001 to finalise sites to be protected in 5 of the main Europe's 'biogeographic regions'. Now the first three of these expert meetings are being delayed.

Latest development

Sites in the Mediterranean region (covering parts of Spain, Italy, France, Portugal and Greece) were due to be finalised 2-4 May. Expert meeting has been delayed 3-6 months: no date set.

Sites in the Boreal region (most of Sweden and Finland) were due to be finalised at a meeting 6-8 June. This has been postponed.

Sites in the Alpine region (covering Pyrenees, Alps and Scandinavian mountains in Spain, France, Italy, Austria, Germany, Sweden and Finland) were due to be finalised 5-6 July. This too has been delayed.

WWF fears that expert meetings set to finalise the sites proposed by Member States for protection in the Atlantic region (northern Spain, the whole of Ireland and UK, western and northern France, northern Belgium, the Netherlands, western Denmark) on 10-12 September, and the Continental region (covering parts of France, Italy, Belgium, Denmark, all of Luxembourg, the southern tip of Sweden and most of Germany) on 22-24 October, will also be postponed.

Why does it matter?

Delays in final site selection means

- possibly fatal delay in the protection of some of Europe's most endangered species and their habitats- such as the Iberian lynx, the brown bear in France, the Lady's Slipper Orchid, the harbour porpoise, the freshwater pearl mussels in Sweden,

the flying squirrel in Finland (without site selection the much needed management plans for Natura 2000 sites are unlikely to be drawn up or put into practice: bad news for Europe's endangered species and habitats)

- Europe's most important nature conservation law risks being seriously undermined
- Projects threatening Natura 2000 and Europe's endangered species such as the Spanish National Hydrological Plan, Lisbon Algarve motorway, or the Olympic Games canoeing and rowing facilities in Greece continue to be developed and implemented.
- local defiance of nature protection is encouraged by the constant delay of nature protection measures
- Credibility of the "conditionality" clause - linking payment of EU regional aid to compliance with EU environment law - is at stake. (see below)

What should be done?

WWF believes it is time for the Commission to apply the measures foreseen a year ago by Commissioner Barnier and Wallström supported by the European Parliament and suspend the structural funds payment for the countries and particular regions to blame. The Commission is unable to assess whether member states plans & programs for spending regional aid conforms with EU law if the Commission does not have full list of sites to be protected under Habitats Directive.

Who is to blame?

France is to blame for delaying the selection the final selection of the Mediterranean and Alpine sites. The French Government is still waiting for a list of additional sites from the Languedoc Roussillon region and Pyrénées Atlantique department, while in Spain the regions of Catalonia and Valencia have yet to submit sufficient additional sites for the Mediterranean region. Sweden is entirely responsible for delaying final selection of Boreal sites and Alpine sites. The Swedish Government is sitting on a list of some 900 additional sites proposed by Swedish Government experts.

In the meantime the Austrian Bundesland of Niederösterreich is reducing the area to be protected by half and dividing some of the most important alpine sites into many extremely small protected areas.

Unless the Commission takes firm action there is every possibility that France will cause a postponement of the expert meetings to finalise site selection in the Atlantic and Continental regions.

WWF action

WWF calls on the Commission to:

- Apply the measures foreseen one year ago and suspend the structural funds payment to errant Member States or regions

- Take every step to make sure that the Atlantic and Continental expert meetings planned for autumn will take place

For more information contact:

Sandra Jen, WWF European Policy Office, 36 avenue de Tervuren Box 12, B-1040 Brussels

Tel: +32-2-743-8813, Fax: +32-2-743-8819

SJen@wwfepo.org <http://www.panda.org/epo>

Raised Bog SAC's in the UK

by Stuart Brooks

Scottish Natural Heritage (SNH), the government agency responsible for wildlife and natural heritage in Scotland, identified 23 lowland raised bog sites to be added to the EU Natura 2000 network under the European Habitats and Species Directive. This list included 11 new and revised sites, added following the Atlantic biogeographic meeting held in Ireland in September 1999. The Scottish Wildlife Trust (SWT), in their official response to the list published by SNH produced their own list which included an additional 17 sites.

Although the inclusion of the 11 additional sites was welcomed by SWT it still does not fully meet the requirements and spirit of the Habitats Directive. Of particular concern is:

- the geographical gaps still left across the Natura 2000 network and
- the exclusion of sites of equal or better quality than those already included on the list.

Given the current state of the remaining 'active – near natural' raised bog vegetation in Scotland (ca. 9% of the original resource or 2,300ha.), it is the view of SWT that all sites meeting the required qualitative criteria should be eligible for designation as Special Area of Conservation (SAC).

SWT's approach to site selection takes into account the aims of the Habitats Directive and the site assessment criteria (Annex III of the Habitats Directive) for a given natural habitat. First, the aim of the Directive concerning Natura 2000 sites is to set up an ecological network of "*special areas of conservation (SACs) which shall enable... habitats... to be maintained or, where appropriate, restored at a favourable conservation status in their natural range*". SAC designation must therefore contribute towards maintaining (active sites) or restoring (degraded sites) a significant proportion of the resource across its full geographical range. The sites on the current list represent only ca. 16% of the original raised bog resource (ca. 26,949ha.), and ca. 55 % of the present active or near natural vegetation cover (this does fall within the EU *guideline* on the 20-60 rule). There are also significant gaps, where adequate numbers of sites have not been selected across the full geographical range.

The SWT analysis produced a list of *all* those sites over 20ha, based on available survey data, that meet the qualitative criteria (as described in Annex III (A) of the Habitats Directive) for selection as active raised bogs. Although there is no requirement through the Directive to instigate an arbitrary cut-off point it is widely accepted that larger sites tend to exhibit better *structure and function* than smaller remnants. The same 20ha cut-off point was employed by SNH in the current round of selection. Where there are no such sites within a defined geographical area (for the purpose of analysis Scotland was split up into 10 ecological *Peatland Zones*) sites that are currently degraded, but capable of restoration are identified (as defined in Annex III A of the Habitats Directive). These two processes combined result in the generation of a network that could significantly contribute towards the conservation of the resource. It is important to note that no other criteria, such as current national designations, have been taken into account in the production of the SWT list.

All sites with a total area less than 20ha or without any *active* vegetation were excluded unless no other sites were available within a *Peatland Zone*. Exceptions were only made for particularly large sites i.e. >100ha (without active vegetation) that have the potential for restoration to favourable conservation status. Following the identification of all qualifying sites a simple quality index was calculated, which is the area of active vegetation divided by the total area. The best site would score 1 with the worst scoring 0.

SWT has identified a further 17 sites that meet the criteria and should therefore be considered for SAC designation. The addition of these sites addresses the gaps in the geographical range. For sites where digitised data was not available an 'average' score, based on the combined data set, of 24% (or quality index of 0.24) active vegetation was attributed. The index score for additional sites only fell significantly below the average score where either particularly large sites were selected or relatively degraded sites were selected to adequately represent the geographical range.

Combined with the 26 sites already selected the 17 additional sites proposed by SWT would represent

approximately 73% of the current active peatland resource.

Although SWT has commented on the list generated by SNH for Scotland, it is the responsibility of the UK Government to submit the list to the EU for consideration. This means the responsible agency (Joint Nature Conservation Committee) has to combine the four lists covering Scotland, England, Northern Ireland and Wales. It appears that the four UK government agencies have taken a slightly different approach to selecting sites. The most apparent discrepancy appears to be with England who have included sites that are currently being commercially extracted. If the guidance on

geographic representivity is observed, it could be argued that these sites could indeed be considered. If these sites are included it could also 'raise the quality threshold' for sites in Wales, Northern Ireland and Scotland. The UK NGO's are supportive of the positive stance taken by English Nature in England. It is now up to JNCC and the other UK government agencies to follow suite and submit an SAC list that adequately meets the requirements of the Habitats Directive rather than one that meets a minimum legal requirement.

Stuart Brooks, Campaigns and Projects Manager, Scottish Wildlife Trust, June 16, 2001.

Peat Alternatives in the UK: Interim Results from Peat-free Trials

Susie Holmes, ADAS

The project on peat alternatives resulted from the decision by the UK National Trust to phase out the use of peat on its properties and in products sold from them.

Peat Use in UK Horticulture

Current figures (DETR) indicate that the total UK market for horticultural growing media and soil improvers/mulches is around 5.3 million cubic metres per year, two thirds of this total being growing media. Peat accounts for about 3.4 million cubic metres of the 5.3 million with over 95% of the peat being used in the form of growing media. Of all the horticultural sectors: commercial growers, landscapers and amateur gardeners, the amateur gardening sector uses 66% of all the peat supplied in the UK. If peat use is to be reduced significantly, therefore, it is the retail market that needs to be targeted.

Amateur Gardening Use

The change in labelling legislation will help gardeners identify the ingredients in a bag of compost more easily, many are not aware that in a typical bag the only ingredient is peat, plus a small amount of lime and base fertiliser. It has been very hard for non-peat materials to compete because peat is so cheap, requiring little processing before use compared to many composted materials. The future uptake of non-peat growing media by the amateur market will be dependent on the environmental policies of the major retailers, from which the majority of bags of compost are sold, and the availability of non-peat products which perform satisfactorily. Some of the non-peat growing media marketed to gardeners in the past have given poor results and discouraged future purchases of peat-free products. There are now good non-peat and reduced-peat products available to commercial growers and some of these will hopefully also reach the amateur market, price permitting. The quality requirements of the amateur market are less stringent than those of the commercial grower market because gardeners are not raising large batches of

plants to specified schedules and standards. The professional grower market also needs a low bulk density (lightweight) growing medium because of the long distances many plants are transported these days.

Why peat?

Peat has dominated the growing media market since the 1950s, when it replaced John Innes type media on commercial nurseries. The 'JI' composts performed well but were very heavy (transport/handling implications) and it became difficult to source sufficient volumes of good quality loam. 'Loam', of course, was not just soil but the product of stacking turf and composting it, hence it contained a large amount of organic matter from the grass and its roots included. A true loam-based compost cannot be stored so easily as peat composts because it is not inert and continues to decompose over time. This is an important issue because the manufacturers of retail composts have to make them from the previous autumn onwards to stock-pile sufficient volumes for the Easter demand peak. Bags of compost may also stay on a garden centre for some time before use, hence a more 'sterile' product such as peat has advantages. Peat also allows manipulation of the pH and nutrient levels to suit the crop being grown.

Peat is an ideal growing medium. The UK has had a ready supply from various parts of Great Britain and Eire and a large amount of research effort was put into fine-tuning mixes in the 1960s and 70s. One of the main advantages of peat is that it will support growth of just about any plant type so it is very flexible. It is also safe to handle, holds good amounts of air and water and it looks nice in the pot! There is no other material that has all the same qualities of peat so the way forward is going to be via blending of different materials. As we move more towards more 'organic', less chemical-based production systems the use of more biologically active materials could be beneficial (e.g. more natural disease suppression) but media may have a shorter 'shelf-life'.

The development of peat alternatives has been fairly slow, partly due to insufficient demand and the reduced amount of government funds available for independent research these days. Much of the research data tends to be confidential to the funder so is not widely available.

The National Trust / ADAS project

During the 2000/01 growing season ADAS is helping to set up trials with various peat alternative blends across a range of gardens, with varying climatic conditions and plants grown. Most of the gardens use bought -in media and four were already peat-free. The objective was to trial both nationally available 'off the shelf' products and locally manufactured products, with a view to using the most environmentally friendly options where possible.

The Alternatives

The major bulk ingredients known to have potential from other R&D are:

Wood/timber wastes e.g. bark, forestry waste, composted chipboard waste, Coconut fibre dust ('coir').

Composted organic materials - have potential as part of the mix but are too high in nutrient status unless diluted with a low nutrient material such as coir.

Other 'waste' products such as composted bracken are locally available to gardens and have been used as part of the blend in trials.

Leaf mould is well established as an excellent component in a growing medium but not all properties have sufficient supplies.

Loam is useful to increase water and nutrient holding at 10-20% of the mix.

The problem with composted green material (e.g. garden waste/brushwood/lawn mowings) is that it is inherently variable, hence for the purposes of the project this type of material was only obtained from reputable, established composting operations as it was felt that not every composting unit dealing with green waste is producing suitable material for use in growing media.

Results of the trials so far

For short-term bedding/annuals/herbaceous plants there appears to be a range of peat-free mixes that have potential. Blends of various materials appear to be easier to manage than straight coir, although 100% coir has given good results on commercial bedding

plant nurseries, as long as it is fed adequately and not over-watered.

Composted chipboard waste did well with larger pots but not for bedding in small modules (insufficient water retention)

Eco-mix (50/50 composted green waste/coir) has done well at Nymans for bedding/tender perennials but was disappointing at Lanhydrock with bedding and Pelargoniums (due, we think, to high pH and salt levels).

Knightshayes own blend of coir/loam+leafmould/grit is well established and grows good plants across all genera grown (including ericaceous subjects)

Powis Castle's blend of a bought in coir/grit/bark mix plus their own loam has given good results

Rowallane has used their own peat-free blend of home-made compost (including horse manure, garden waste and shredded paper) mixed with bracken compost and sand for many years but this is reliant on local composting expertise.

What have we found?

- No single mix is going to suit every garden and every plant species but a blend of woodwaste/bark/loam and possibly some coir has potential for a wide range of bedding/herbaceous plants.
- We need more fine-tuning for shrubs but general species appear to perform in similar blends, with a slightly coarser structure. Over-wintering results will be important for these trials.
- Ericaceous shrubs, especially rare varieties of Rhododendrons, require more research to have confidence in peat-free mixes but pine bark/woodwaste blends are known to have potential.
- All the alternative materials have different watering requirements to peat, most needing more frequent irrigation - this has labour use and environmental implications.
- Coir or bark have good potential for propagation of cuttings. Many commercial nurseries are using coir already for this because of the faster rooting achieved.

September 2000.

For more information:

http://www.ntenvironment.com/html/nat_con/_fs/fs_natur.htm

VISIT THE IMCG HOMEPAGE AT

<http://www.imcg.net>

B&Q to go Peat Free

by Friends of the Earth

B&Q, the leading home and garden chain in the UK (with 30% market share), is planning to go completely peat-free. The move follows concerns over the environmental impacts of peat extraction.

Friends of the Earth has surveyed all the major retailers of growing media in the UK. The environment group has compiled a detailed "Peat/Peat-Free Retailers League Table" to advise gardeners. The ranking of the retailers is likely to provoke great interest from the public who have recently turned strongly against peat. (A poll in the latest edition of BBC Gardeners World Magazine suggest 74% would support a peat ban).

Friends of the Earth graded each retailer on:

- Current policies for the sourcing and use of peat: Does the peat they sell in bags or plant pots come from protected areas both here or abroad, and do they use peat in store landscaping or displays?
- Consumer choice (availability of peat free products): Do they stock a comprehensive range of peat-free products in every store?
- Future plans: Do they recognise that peat is an unsustainable product and do they intend to eliminate peat sales in time?

Not surprisingly, B&Q's plans to go peat-free gained it top place in the table scoring 18 out of a possible 20 points, way above its nearest competitors, Homebase and Focus-Do-It-All both on 12 points. Wyevale Country Gardens and Tesco are languishing at the bottom, in 9th place (7 points) and 10th place (6 points) respectively. But Friends of the Earth is scornful of the handful of retailers that failed to return questionnaires (including Asda and Nottcuts). When chased, Asda replied that they had "thrown it in the bin!".

In contrast, B&Q completed the questionnaire and sent a CoPy of their detailed peat policy (see below). The policy acknowledges the unsustainable nature of peat extraction, and the damage it is causing to some of the finest wildlife sites both here in the UK and abroad. The company sets a broad target of eliminating all peat sales over the next ten years. But B&Q have also committed themselves to peat-free dilution strategies for each individual peat product.

At the moment, only 27% of B&Q's growing media and soil conditioner sales are peat-free. But by 2006 they intend this to be 85% at which point there will be a progress review and new targets set for going completely peat free. The strategy applies to the whole range, not just own-label. Nurseries supplying B&Q with plant grown in peat will also have to meet the targets.

The retailer has also committed itself to clear labelling on all products, showing exactly the percentage composition of peat / peat-free. And, they intend to increase their range of entirely peat-free products.

Craig Bennett, Peat Campaigner at Friends of the Earth said: "Friends of the Earth and other environmental groups have been consulted by B&Q over the last year about what their new peat policy should say. We told them that it should be a strategy for going peat-free. But, we are delighted with how comprehensive their new policy is.

B&Q are now the clear leader amongst growing media retailers, and they have set a standard for others to follow. The public clearly want it, and there should now be no excuses - if they can do it when they B&Q it, why can't the other retailers go peat-free also?".

Liquor from peat

Add sulphuric acid to 100 kg peat litter. Boil for 45 minutes under a pressure of 3 atm. at 120 °C. After this press the juice, and neutralise with chalk. Ferment the gypsum sediment. After 3-5 days the alcohol can be distilled. In average it is possible to distil 6,51 litre of alcohol pr. 100 kg peat.

In 1905 a German-French company invested 1-2 million Danish kroner in a factory at Lille Vildmose. 100 men were employed, but deliveries were never made, despite that it was designed to produce 6000 pots of liquor a day (~1500 l.). Evil rumours say that they didn't produce more than they could drink themselves.

The recipe is taken from the book by Søren Chr. Jensen (1998): Lille Vildmose - kultur og natur, where reference is made to an engineer in 1906. The book gives an excellent description – in Danish – of the background of Lille Vildmose up till today.

B&Q

Peat Policy

April 2001

Purpose of B&Q's Peat Policy

B&Q recognises that the use of peat in growing media has a finite future, without the (unacceptable) exploitation of currently unharvested bogs. We will therefore work progressively towards eliminating the use of peat without compromising product performance or customer confidence.

B&Q Peat Buying Policy – Revised March 2001

B&Q will continue its policy, established in 1991, of not buying or selling peat extracted from peatland sites of recognised ecological, archaeological or other conservation value (worldwide). This includes branded and own-branded products, and peat used as a growing media for plants sold in pots.

Peat as an economic resource will not last indefinitely. It is in all our best interests to develop alternatives. B&Q will work with its entire supply chain to reduce and eventually eliminate its use of peat, through a sustained peat dilution and replacement programme.

B&Q recognises that using alternative or recycled materials in horticulture will help reduce peat consumption as well as benefit sustainable development. The UK Government has set an initial target that 40% of the total requirement for soil conditioners and growing media should be met by peat alternatives by 2005. B&Q will seek to meet at least this target in its own sales, which currently comprise about 30% of the total UK market for Growing media.

The UK Government's Biodiversity Action Plan sets a more ambitious aim of being 90% peat free by 2010, noting that this will require more promotion of research and development of sustainable alternatives. B&Q will work with Governments, NGO's and the industry for a joint approach to increasing availability and use of recycled and other alternative materials.

Our aim is to manage, minimise and eventually eliminate our peat use in a controlled manner. We will use declining amounts of peat, as a proportion of the total volume, and we will continue to ensure that it has been extracted with the minimum amount of environmental impact. B&Q aims only to purchase peat that can be shown to have been obtained in accordance with international guidelines for site identification, extraction and restoration. No suitable guidelines are yet in existence. B&Q is willing to work with other interested parties to develop guidelines and establish third party auditing and chain of custody certification.

We regard it as essential that we enable our customers to make informed choices about their purchases. We will therefore take the following steps:

- provide consistent, factual information to our customers about peat alternatives and the reasons for choosing them
- stock a range of alternatives to peat and peat based products at competitive prices
- clearly label products that contain peat, and identify the percentage in each product.

As part of its sustainable development programme, B&Q will produce sustainability indicators to monitor the progress of its strategy for reducing and eventually eliminating our dependency on peat.

B&Q Peat Targets

The following targets have been agreed with regard to peat reduction.

Total volume of growing media and soil conditioners, sold by B&Q will have the following minimum levels of peat alternatives (based on the Government's definition of growing media and conditioners):

Forecast for end of 2001: 30%

Targets for end of:

2003: 50%

2004: 65%

2005: 75%

2006: 85%

Some of this reduction will be attributed to the general increase in sales of bark chips and mulches but will be further driven by our peat reduction strategy.

Every peat based product in the growing media range will be clearly labelled (including % peat content) and will have its own dilution strategy. Progress will be reported annually for each individual product.

We will also develop dilution and labelling strategies for peat used as growing media for plants sold in pots where possible given the specific requirements of the plants, using the same principles as for growing media.

Our ability to achieve these will depend upon a number of factors, including the availability of alternatives, of sufficient quality and in the necessary volumes. We will therefore commit to a review of progress at the end of 2003, and a major review in 2006 at which time we will set out realistic targets for further reductions and the eventual elimination of peat.

Contacts: Alan P Knight, Head of Sustainability (alan.knight@b-and-q.co.uk), Hilary Thompson, Sustainability Manager (hilary.thompson@b-and-q.co.uk), B&Q plc, Portswood House, 1 Hampshire Corporate Park, Chandlers Ford, Eastleigh, Hampshire SO53 3YX, www.diy.com

Regional News

News from South Africa

by Piet Louis Grundling

The working for water programme and peatlands

The poverty relief initiative of the South African government, the Working for Water Programme, has – as was reported in the previous issue of the IMCG Newsletter – targeted the rehabilitation of degraded wetlands as part of their programme. Four peatlands benefited from the first phase:

1. The Heddlespruit peatlands near Graskop (Grass hill) in the Blyde (Joyfull) River Canyon Nature Reserve and
2. the Verlorenvallei (Lost Valley) wetlands in the north-eastern parts of South Africa,
3. the Rietvlei (Reed swamp) peatlands in the Rietvlei Nature Reserve near Pretoria and
4. the Kromme (Skew) River in the Eastern Cape Province.

The wetland rehabilitation programme has received R 30 million (about Euro 5 million). The number of peatlands that will benefit from the programme has been increased to eight (including the above mentioned 4). The new peatlands are:

5. Lakenvlei (Linen marsh) near Dullstroom in the north-eastern parts of South Africa,
6. Colbyn Valley wetland in Pretoria and the
7. Eye of Molopo wetland and
8. the Eye of Malamani peatlands in the north-western parts of South Africa.

The peatlands rehabilitation proportion of the budget is about 25 % and it is an excellent example of the commitment of wetland conservation officials and scientists towards the conservation of peatlands in South Africa. However, the official government policy in various ways still favours the destruction of our peatlands through peat mining, agriculture, and development. As such we (wetland and mire lovers in South Africa and internationally in the IMCG, I like to believe) are waiting in anticipation for the official release of the IMCG resolution on South African peatlands that was drafted at the IMCG 2000 meeting in Quebec in August 2000.

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

Mosstrosities and Colbyn valley peatland

The Mosstrosity (name derived from peat moss) Environmental Impact Study Group (Grade 10 pupils of CR Swart High School) in Pretoria consists of a number of school children who has adopted the Colbyn Valley Wetland. Here are a few highlights of their involvement with the peatland of Colbyn Valley:

- They held a very successful and well-attended awareness day on World Wetlands day, 2 February 2000;

- Mosstrosity featured on 50/50 environmental television programme; Eco-forum, Radio Sonder Grense (Radio without boundaries) and Tien-tien (ten-ten), Radio Pretoria and various local newspapers, and
- They were instrumental in forcing the City Council of Pretoria to rehabilitate a pipeline servitude through which a pipeline was laid across the wetland and in commissioning Metro Rail to commission an ecological study on the status of the wetland before fixing a slope failure on the railway running through the wetland. R 1.5 million (Euro 250 000) will be spend this year on the rehabilitation of this peatland.
- The group presented the Colbyn Valley Wetland as a project at the Gauteng North Science Expo and won a silver medal!

For more details contact Annette van Heerden, Mirelle, or Petro,
tel.: +27 1233 23130 or fontynpt@mweb.co.za

Peat wetland eco-regions in South Africa

This project was introduced to the IMCG in the previous issue of the IMCG Newsletter. This project is now coming to an end and interesting results have been recorded. We would like to highlight some of these findings during the next few issues of this newsletter.

It was found during this study that there is a strong correlation between the distribution of peatlands and the Mean Annual Recharge (MAR) and the baseflow (groundwater component of river flow) of aquifers in South Africa. All the peatlands investigated have MAR values of more than 50 mm a⁻¹. 46% of the peatlands occur in areas with MAR values of 50-75 mm a⁻¹, 27% in areas with values of 75-110 mm a⁻¹, and 27% in areas with values of 110-160 mm a⁻¹. These values are all located, spatially, in a relatively narrow and well defined zone. The MAR values depend on factors such as:

- rainfall: the amount, type, intensity and temporal distribution;
- geology: rock type, soil or subsoil: infiltration capacity and macro-pores;
- surface slope;
- type of vegetation cover, etc.

The baseflow values also occur, even more so than the MAR, in a spatially, relatively narrow and well defined zone. 55 % of the peatlands occur in areas with baseflow values of 10-25 mm a⁻¹, 18% in areas with values of 25-50 mm a⁻¹, and 18 % in areas with values >50 mm a⁻¹.

The above-mentioned values are taken from the Groundwater Resources of the Republic of South Africa, Sheet 2, 1995 and the associated report. They therefore represent regional scale values and further investigations are necessary in order to determine the

actual contribution of these parameters on the distribution of the peatlands.

Geology plays a major role in the distribution of peatlands in South Africa. Rock type, weathering, and erosion processes together with climatic factors determine the geomorphology, topography, soil type, etc of a region. Some geological features such as dykes, faults, and lithological contacts may be the key-point on which a peatland is established. Some of the important lithologies determining the distribution of peatlands in South Africa are dolomite (karst), conglomerate, quartzite, and sandstone.

The majority of the peatlands are classified as valley bottom fens. A strong bimodal distribution of the peatlands in terms of aspect was established. Half of the peatlands' aspects plotted in a range from northwest to north northeast, while the other 50 % of the aspects plotted in a range from southwest to east southeast. These distributions in terms of aspect could be important in terms of species composition and biodiversity of the peatlands.

A definite relationship exists between the area of the peatlands and the slope associated with the wetland. The majority of the peatlands occurred on slopes less than 1%, although slopes of upto 12 % were recorded. All of the peatlands are situated in stream orders of 1 to 2, with some of the complex systems between 1 - 4. Some peatland originated at a 0 order, indicating the importance of dolomitic eyes, seeps and springs in terms of their location at the origin of rivers and streams. This emphasises the important role of these peatlands in a range of functions, varying from water storage, augmenting of base flow in the 0, 1 and 2 stream orders, to flood attenuation and filtering in the 3 to 4 stream order peatlands.

A major benefit of this eco-regional classification is that one covers specific areas and excludes large portions of the southern African landscape to do a much more cost effective inventory and classification of mires in the region.

For more details please contact
 Piet-Louis Grundling: peatland@mweb.co.za
 Tel.: + 2712 808 5342;
 Gary Marneweck: wetland@smarnet.co.za
 Tel.: +2712 361 8856

News from Australia

For more than 30 years the Wingecarribee swamp in New South Wales Australia (34°34'S, 150°31'E) was mined for its peat, the Sydney Water company has relied on the water that flows out of the marsh, and agriculture has surrounded the unique area.

After intense rainfall on the night of 8 - 9 August 1998, a dredge from the mining lease within Wingecarribee Swamp was found floating towards the middle of Wingecarribee Reservoir. Behind the dredge was a floating island of peat, estimated to contain between 1.7 and 2.3 million cubic metres of peat, consisting mainly of blocks of peat that had

been washed into the reservoir from the Swamp. A large channel running the entire length of the swamp developed as part of this event, which rendered the buffer zone between the mining pool and the reservoir substantially ineffective. This incident significantly modified the swamp ecosystem and also had severe water quality implications for the reservoir.

As a result of the swamp collapse, a section of swamp is now floating within the reservoir. The floating section is constrained to the eastern end of the reservoir by a recently erected fence. The area of floating peat is approximately 144 hectares and is comprised of between 5 and 8 million cubic metres of peat.

Immediately following the collapse, Sydney Water instigated a series of actions which included monitoring of water quality in the reservoir, investigating the impact of leachate from the peat and the potential for future deterioration. The floating peat mass within the reservoir was also stabilised.

The Minister for Mineral Resources announced on 26 August 1998 that mining leases for Wingecarribee Swamp would not be renewed. The swamp was listed on the State Heritage Register in February 1999 by the Minister for Urban Affairs and Planning.

In May 2001, the Environment Minister, Mr Debus, announced that the State Government will try to rehabilitate the heritage-listed swamp, and prevent further damage to the highly degraded ecosystem. It is not yet possible to restore the swamp to its pre-1998 condition, Mr Debus said, but the plan will see the National Parks and Wildlife Service working "to stabilise and preserve the remaining swamp habitat".

Two relatively large intact areas of peat still remain along the southern edge of Wingecarribee Swamp. There are also two smaller pockets, in the north eastern and eastern part of the swamp. This remnant peat has a combined area of 115 hectares. The remnant peat sections have considerable conservation value. Wingecarribee is home to at least three endangered species and numerous Aboriginal archaeological sites.

Much of the \$1.5 million allocated by the Government will be spent ensuring these values are protected. Blackberry and willow invading newly dried parts of the swamp are to be eradicated as a priority, water levels are to be stabilised and the site is to become a total fire exclusion zone.

Indonesia:

International Symposium And Workshop On Tropical Peatland

by Bambang Setiadi

Tropical peatland is an important but endangered ecosystem that supports a large biodiversity and performs many ecological functions. It is also essential to the livelihood of many indigenous people. In Indonesia the peatland resource is being reduced

and degraded as a result of sector developments, mostly agriculture and settlement, that are initiated without adequate prior environmental impact assessments. Most of these schemes are unsustainable and fail, for example, the one million hectare Mega Rice Project in Central Kalimantan. Forestry, by selective removal of commercial species of appropriate size, can provide a regular, sustainable and financially rewarding return for investment but uncontrolled illegal logging is undermining this. It is only by giving due regard to the feelings and needs of local people that their respect for the forest and responsibility for its safekeeping can be obtained. Indigenous people who use peat swamp forests for the collection of some timber and non-forest products should be regarded as major stakeholders in the sustainable management of this resource.

Peatlands globally are now recognised as one of the most important and largest stores of carbon with around 50% of the total soil carbon or more than that held by the world's forests. In addition, actively forming peatlands have the unique ability to act as carbon sink, locking up atmospheric carbon for thousands of years. This function is lost following drainage and conversion to any other land use. Tropical peatlands, of which about 60% occur in Southeast Asia, are vital components of this global process and are now important in Kyoto Protocol discussions in formulating protocols for carbon credits and the Clean Development Mechanism. Unfortunately, countries that have large reserves of tropical peat, such as Indonesia and Malaysia, have not so far realised this economic importance of maintaining their remaining peatlands in their natural state.

International efforts are now being directed towards problems affecting peatlands globally and these are being crystallised in the "*Global Action Plan for Peatlands*" (GAPP) that is currently being prepared on behalf of the Ramsar Convention for distribution to all contracting Governments, including Indonesia. After acceptance, this Plan will become the blueprint for designating many more peatlands as Ramsar sites and applying wise use principles to the management of all others. In tandem with the GAPP, the International Peat Society and the International Mire Conservation Group are preparing a major document on "Wise Use of Peatlands Globally for their Sustainable Management". When completed this document will also be of major significance for tropical peatlands. In addition, the importance of tropical peatlands has been recognised by several other international conventions, for example, the Convention on Biodiversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC), and regional initiatives such as the ASEAN Regional Action Plan on Transboundary Haze.

It is time to reconsider the status and future of the World's vast tropical peatland resource of around 40 million hectares. These are of national, regional and international importance not only for their local value

in terms of water resources, biodiversity, land stabilisation, agriculture and forestry, but also for their role in global climate change processes through carbon storage, sequestration and emission. Land use change activities damage these attributes irreversibly and lead to permanent environmental damage, including global warming, climate change and loss of income to local people because they can no longer pursue traditional activities in these ecosystems.

An international meeting titled "Peatlands for people: Natural resource functions and sustainable management", to be held in Jakarta, Indonesia from 22 – 24 August 2001, will present the most up to date scientific, technical and socio-economic information on tropical peatlands. It will address the problems presented by sector development of tropical peatlands and examine ways in which these might be mitigated or prevented. The opportunity will also be taken to present the wise use approach as a means to achieve sustainable management of tropical peatlands under different land use options. Ways of involving local people in the planning process for the sustained utilisation of tropical peatlands will be a major consideration. The meeting has implications for Agenda 21 and will provide valuable information for Rio+10.

It is intended to hold technical sessions on the following aspects of tropical peat and peatlands:

- origin, formation, extent, biodiversity, ecological functions, natural resource functions;
- sector development of tropical peatlands (agriculture, forestry, mining, settlement);
- peat soils;
- impacts of fire and land use change;
- carbon stores, sinks and emissions;
- problems of rehabilitation and restoration;
- socio-economic importance, especially to local and indigenous communities;
- conservation, sustainable development and wise use, especially involvement of local and indigenous communities;
- relevance to international agreements and conventions;
- future prospects and funding.

A field excursion will be held on 24th August to Riau, Sumatra to visit developed and undeveloped peatland areas. This will be a one-day event travelling by charter plane from and back to Jakarta for which a charge will be made. Participants who are attending the International Wetlands Symposium in Penang on 27-29 August will be able to proceed directly from Sumatra to Malaysia after the field excursion.

The registration fee of US\$ 50 covers participation in the symposium, documentation and information, abstracts, proceedings, refreshments, welcome reception and symposium dinner. Please register before 31 July 2001.

For more information contact:

Dr. Bambang Setiadi,

bsetiadi@bppt.go.id or tarto@bppt.go.id

**Russia:
National Training Course on the
Conservation and Management of Wetlands
in Russia**

by Karen Jenderedjian

The staff involved in management and conservation of wetlands from state environmental bodies, NGOs, nature reserves, research institutes and universities from Chukotka and St. Petersburg, Kalmykia and Khingan, Altay and Moscow came together in the capital of Russia from 10 to 19 May 2001 for training in various issues related to wetland conservation and management.

Except national experts from various institutions (among them well known to the IMCG members Tatyana Minaeva and Andrey Sirin), the lecturing staff included leading experts in wetland conservation from Armenia, Belarus, Czech Republic, and Ukraine.

The highlight of the program was visit to the reserve Zhuravlinaya Rodina (Cranes' Homeland) in the North of Moscow province to familiarise the participants with a demonstration model of participatory management and sustainable use of wetlands. It is hard to believe that almost untouched beautiful forest peatlands could be situated in the immediate vicinity to the 10 million population city.

The course was organised by the Wetlands International-Russia Programme with the financial support provided by the Ministry of Agriculture, Nature Management and Fisheries, The Netherlands. There is no doubt that the course was successful mainly due to the efforts of organisers, especially Olga Anisimova, Programme Leader, and Irina Kamennova, Technical Programme Officer.

**Armenia:
Regional training course on wetland
management**

by Karen Jenderedjian

A regional training course on wetland management for the staff of wetland conservation and management institutions in the new independent states of the European Region will take place in Armenia from 9 to 23 September 2001. The project is funded by the Ramsar Convention's Small Grants Fund for Wetland Conservation and Wise Use (Ramsar SGF 2000).

It is expected that 12 participants from Armenia, Belarus, Georgia, Moldova, Russia and Ukraine (the list is still open!) will live and work together with the international lecturing staff in the House of Writers Creation with magnificent view on high mountain Lake Sevan (1900 m above sea level, surface 1244 km²).

These countries are very different in size and population. But they have similar inheritance after collapse of the socialism in the USSR: economy in transition with old-fashioned technique, bad environmental conditions, and shortage of funds for

nature protection. The staffs of the institutions involved into wetland protection are very enthusiastic but training needs in this area are of higher priority.

The organisers aim on the following main objectives:

- to provide participants with the minimum important knowledge and skills necessary for wetland management (Ramsar Strategic Plan's Operational Objective /O.O./ 4.2);
- to identify and develop common approaches for conservation and wise use of shared wetlands and catchments, transboundary rivers (O.O. 7.1);
- to prepare draft management plans for two wetlands areas of which one is part of Lake Sevan Ramsar site and the second is proposed Ramsar site (O.O. 5.2).

Implementation of training course will provide the participants with increased knowledge important

- to apply selected monitoring techniques,
- to make wetland inventories,
- to determine values and problems related to wetlands,
- to make stakeholder analysis,
- to assess management objectives and translate them into practical measures,
- to prepare draft management plan.

Additional objective of the course is to provide to the participants basic skills of work on computer.

In addition to knowledge necessary for wetland management, the course will help to improve co-operation among the different wetland managers from different countries and institutions with good perspective for future co-operation and wetland training support in the region.

The working language of the course will be Russian, which is still common and well understood in the countries involved.

The course will jointly organised by the Ministry of Nature Protection of Armenia and Professional and Entrepreneurial Orientation Union that focuses on training and ecological research.

For more information contact:

Karen Jenderedjian,
Ministry of Nature Protection,
35 Moscovian Str., 375002 Yerevan, Armenia.
Tel: +374 2 568 027; Fax: +374 2 151 959
jender@nature.am

News from the Danube

Bucharest, Romania - WWF is urging that the commitments made at a successful Danube-Carpathian summit on conservation and sustainable development in the region must be backed up with international support.

"We think it's high time to invest in keeping one of the region's most important capital assets, its nature, and restore it where necessary," says Philip Weller, Director of WWF's Danube Carpathian Programme. "In addition to the resources already committed, WWF is now approaching the international funding

organisations and the European Union to provide expertise and financial help so that the plans for action can become reality."

Four signatories - who last year signed an agreement on the protection of the lower Danube - have already made the first steps towards putting their commitments into practice:

Bulgaria has prepared a conservation and restoration strategy for the floodplain forests on sixty-nine Danube islands which are crucial for the area's biodiversity. Romania is undertaking further restoration of floodplain islands and delta areas many of which formed land reclaimed for agricultural use. However, the conversion failed because of changes to the water regime and consequent salinisation. Measures will be taken to restore the natural balance and the water purification capacity of the floodplains. Ukraine has started similar projects to compliment restoration actions which are already taking place in the Odessa area. Moldova is working on a project to minimise agricultural pollution on the Prut river, a large tributary to the Danube.

Conservation measures often contribute directly to livelihoods. The restoration of floodplains will increase numbers of fish, which provide the basis for local fisheries. Families in the Danube delta also develop infrastructure for ecotourists. Floodplains secure the capacity for natural water purification - their restoration is vital for drinking water and therefore for health and well-being of at least 15 million people.

"This is action for nature as well as for the people living in the area," says Ms Jasmine Bachmann, WWF freshwater team-leader. "Since the year 1900, 80 per cent of floodplains along the Danube have been destroyed. Now we must protect and restore wherever needed."

For further information: Mark Vanderbeeken, European Freshwater Communications Manager, e-mail: m.vanderbeeken@wwf.dk

**Czech Republic:
Ramsar Advisory Mission to the Sumava
mires, 5-8 June 2001**

by Tobias Salathé

The Convention on Wetlands (Ramsar, 1971) gives special attention to assisting Contracting Parties in the management and conservation of listed sites whose ecological character is changing or likely to change as a result of technological development, pollution or other human interference. This is carried out through the Ramsar Advisory Missions (RAM), a technical assistance mechanism formally adopted by Recommendation 4.7 of the 1990 Conference of the Parties (formerly known as the Monitoring Procedure and the Management Guidance Procedure). The main objective of this mechanism is to provide assistance to countries in solving the problems at particular

Ramsar Sites related to the maintenance of their ecological character.

The Sumava mires Ramsar Site comprises a complex of disjunct peatlands, including three core areas in the granitic Sumava mountains, providing unique ecosystem islands. The area includes high plateau raised bogs, valley bogs, coniferous forest and riparian wetlands of the upper Vltava (Moldavia) river. Bogs on the high plateau's show characteristics of the forest-tundra with low-growing bog pines, open areas, shrub and grass vegetation. Both types of raised bogs (high plateau and valley bogs) are often surrounded by waterlogged spruce forests. Deforested areas are covered by minerotrophic mires with stands of short sedges. Outside the wetlands, the vegetation consists mainly of mixed, beech or fir-dominated forests. The bogs are of considerable entomological and botanical interest, supporting various endemic and rare species, including relict populations of 25 species of butterflies, dragonflies, beetles, Capercaillie, Black Grouse and Northern Birch. Some nature trails exist, although most of the Ramsar Site is closed for public access.

Within the National Park, discrete stands of old-growth and natural forests survived. Together with a number of bogs and mires, these original ecosystems form a network of discontinuous patches of non-intervention, core areas, left to natural development without human interference, designated as Zone 1 of the National Park. The outbreak of bark beetle populations in Sumava National Park induced serious problems with regard to forest regeneration and had effects not only on the affected sites, but also on adjacent forests and transboundary areas in neighbouring Bavaria. While the Bayerischer Wald National Park applies a non-intervention policy, bark beetle populations are controlled in the Sumava National Park with well-established methods (sanitation and individual cutting of infested trees in Zone 1, clearance of larger areas in Zone II).

The RAM consisted of a number of specialists of the Sumava National Park, Czech Ministry of the Environment, National Ramsar Committee, Agency for Nature and Landscape Protection, Academy of Sciences, South Bohemian University, and the environmental NGOs. Additional experts came from the Slovak Academy of Sciences, the adjacent Bayerischer Wald National Park, IMCG, the Ramsar Bureau and its Scientific and Technical Review Panel.

They visited a number of the different mires in the Sumava National Park and discussed the ecological consequences and environmental impacts of different methods of bark beetle control, including the absence of control measures, on forest structure and development, microclimate (clear cuttings), hydrology and soil ecology (through drainage and compacting with heavy machinery to remove affected trees), and biodiversity (through altering the forest extent and structure, the hydrology of peat bogs, etc.). They noted the importance of the Sumava mires in a central European context and underlined the crucial

role the Sumava National Park is playing at regional scale. They stressed the need for transboundary management, according to the guidelines in Ramsar Handbook 9, including co-ordinated bark beetle population management measures on both the Czech and German sides. Currently, a series of concrete recommendations for management measures and evaluation and monitoring procedures are under elaboration. After acceptance of the final report by the Czech Ministry of the Environment, it will be accessible at the Ramsar Convention's website: www.ramsar.org/index_ram.htm.

Tobias Salathé, Regional Co-ordinator for Europe, Convention on Wetlands

News from the EU: Ecolabel

Through its presence at the second Ad Hoc Working Group Meeting on EU Ecolabelling of Soil Improvers and Growing Media on 5 March 2001 and by sending letters to the Competent Bodies of each country, IMCG had strongly advocated the position that giving the Ecolabel to SI & GM containing peat is currently unacceptable practice (see previous IMCG Newsletter).

At a final discussion and vote in Brussels, 12-13 June 2001, final draft criteria were accepted. In these it reads: "...Products shall not contain peat or any products derived from peat..."

The final draft document will now be translated into all official European languages, presented for formal adoption by Commission and published in the Official Journal. The estimated time for procedures is 2-3 months.

For more information surf to:

http://europa.eu.int/comm/environment/ecolabel/soil_improvers_revision.htm

Here, also the final draft document can be downloaded.

News from The Netherlands

In 2002, artists from all over the World will come together for an international Peat Symposium. Under the title of PeatPolis.NL they will not be talking about economics or conservation of peat and peatlands, but rather be having an art-project based on peat. A 'Polis' of peat will be build at the Dutch 'Veenpark', a park that shows the former world of peat extraction in The Netherlands, with the houses, machines, etc. and also a scientific exhibition of this world in which the painter Vincent van Gogh was living for a while. The park is located in the northern province of Drenthe near the city of Emmen.

Interested people should contact Wim Tonnis of IPS-Netherlands: wimtonnis@home.nl

News from Scotland

The Scottish Wildlife Trust has been successful in securing a £1.45 million peatland project. The purpose of this three year project is to co-ordinate the successful implementation of the Scottish Raised Bog Partnership's LIFE III Nature project, which will restore 11 Special Areas of Conservation to favourable conservation status (see also elsewhere in this Newsletter). The Scottish Raised Bog Partnership comprises Forest Enterprise, Scottish Natural Heritage and Scottish Wildlife Trust.

The Royal Society for the Conservation of Birds have also been successful in securing Life III funds for a blanket bog project in Scotland.

News from Ireland

Airport Will Destroy Connemara Bog

The Irish Peatland Conservation Council (IPCC) expressed dismay at the recent decision of An Bord Pleanála to approve the airport development proposed for Cleggan, County Galway.

The site on which the development is to take place is on an area of pristine peatland. IPCC, An Taisce, and BirdWatch Ireland all objected to the development on the basis that the site is an intact area of blanket bog, now a very rare and important habitat in Ireland and Western Europe. In addition, the site is listed as a proposed Special Area of Conservation (SAC) on the recently published NGO SAC shadow list. The proposed development will have a major impact on the ecology and character of the remote site, more than 85,000 cubic metres of peat will have to be excavated from the site during the construction phase. Mr Patrick Crushell, Conservation Officer with IPCC said "it is a disgrace in this day and age that such important wildlife sites are not offered the full protection afforded by the European Habitats Directive. This decision also goes against the principals of sustainable development".

IPCC have been informed that Dúchas, the state agency responsible for nature conservation did not make any submission to Bord Pleanála or Galway Country Council in relation to the proposed development. This is surprising considering that one Dúchas expert Dr Noel Kirby described the site as being of high conservation importance, and worthy of SAC designation.

IPCC also questioned the wisdom of having both Dúchas and Udarás na Gaeltachta (a major backer of the project) under the same government department when obvious conflicts of interest arose in relation to this development.

One victory resulting from IPCC's appeal was that a terminal building proposed for the site did not receive planning approval on the grounds that it is an unsuitable development for a designated scenic area.

The developer must also take special care in ensuring the survival of bog cranberry on the site, as this plant is rare in blanket bog habitats.

In addition, the development at Cleggan is not to commence until after work has begun on the development of an airstrip on Inisboffin. This is to ensure that the primary purpose of the Cleggan Airstrip is to offer an air service to the island.

Windfarm threatens blanket bog

Windfarms are seen as green energy and are promoted as Ireland's answer to produce renewable energy that has a low impact on the environment. The Irish Peatland Conservation Council (IPCC) agree that wind energy is a cleaner way of producing electricity than the burning of non-renewables such as peat, which pollute our atmosphere and destroy our once natural peatlands.

However, wind energy can be described as anything but 'green' if located in the wrong environment. The proposed windfarm of 67 turbines 25 miles of road in the Ox is within an internationally important blanket bog which is designated as a Special Area of Conservation (SAC), and as such 'protected' by national and European law. Windfarms are not compatible with nature conservation in upland sites as they facilitate erosion and damage fragile peatland ecosystems.

The planning system has been unable to keep up with the rapid development of windfarms. It is evident from the chaotic manner in which they are being proposed that there is no strategic approach to the siting of windfarms. Since 1998 IPCC have called for the completion of an upland survey and for Minister Noel Dempsey to draw up new guidelines to ensure that windfarms are sited in appropriate locations. Local authorities should be obliged to zone suitable areas within counties where such developments would be permitted, and avoid areas that are earmarked for nature conservation.

Building a windfarm within a SAC, even entertaining such a proposal is outrageous. Unless the appropriate government conservation and planning agencies make SAC's a no-go for such developments we will continue to erode away our heritage of upland bogs which we are committed to protecting.

Kildare Peatland SAC Being Destroyed

A large bog in county Kildare that has survived for thousands of years as a natural wilderness area is being damaged and will be destroyed in the near future unless Kildare County Council take action against a peat developer.

Mouds Bog is the largest area of uncut raised bog remaining in County Kildare, it is located just a couple of miles from Newbridge. The site is a haven for rare plants and animals in a countryside that is becoming increasingly urbanised. The scientific importance of the site was first recognised in 1981 when it was listed as an Area of Scientific Interest (ASI). The bog was upgraded to a Natural Heritage

Area by Dúchas in 1995 and is about to be designated as a Special Area of Conservation (SAC) because of its international importance as a raised bog habitat.

Sixty hectares of the bog is being industrially mined despite the fact that planning permission has never been granted for this scheme. Peat is being removed by the Northern Irish based Bulrush Peat Company. Once removed the peat is sold as horticultural moss peat on the Irish and UK markets. This occurs despite Bulrush claiming to have a 'policy' of not extracting or purchasing peat from ASI's.

Kildare County Council are obliged to ensure that this development be subject to Irish Planning regulations. The Irish Peatland Conservation Council (IPCC) alerted Kildare County Council to the unauthorised activity in 1998 but since then the Council have not insisted on the developer submitting a planning application or an Environmental Impact Statement for the 60 hectare project.

A spokesman for the IPCC Mr Patrick Crushell said "It is as if the authorities are willing to turn a blind eye to developers who knowingly destroy our natural heritage. The Council must realise that the long term irreversible loss of the bog for County Kildare is far greater than the short term economic gain for a few individuals."

IPCC hope that Kildare County Council will take action against the developer for not complying with planning regulations in the past. The operations should now cease on the site until such time that an Environmental Impact Statement is prepared and planning permission granted. Mr Crushell added that "The Environmental Protection Agency (EPA) should refuse to issue a pollution control licence until such time that the developer complies with planning regulations."

Ireland's gardens peat free

In its on-going campaign to save bogs in Ireland, IPCC want to persuade more gardeners to switch from using peat which destroys wild peatlands, to using a variety of peat free soil improvers, seed and potting compost and mulches which are available in garden centre and DIY outlets.

A full list of the peat-free suppliers and their products is available on the IPCC web site at www.ipcc.ie and in a newly updated peat free gardening leaflet available from IPCC. These sources list products ranging from Irish Earthworm Technology's worm cast compost, to recycled wood chips produced by Connaught Timber Products, and Brewers Barley Mulch.

In addition to promoting a range of products produced by Irish suppliers the IPCC sells its own peat free compost - the Gro-Bric, a natural and renewable product.

Irish News provided by:

Irish Peatland Conservation Council, 119 Capel Street, Dublin 1, Ireland

Tel: +353-1-8722384, Fax: +353-1-8722397

bogs@ipcc.ie <http://www.ipcc.ie>

New and recent Journals/Newsletters/Books/Reports

Anderson, I.P. & Bowen, M.R., 2000. Fire zones and the threat to the wetlands of Sumatra, Indonesia. Ministry of Forestry Indonesia / European Union, 46 p.

Most recent issue of a series of fourteen project reports prepared during 1999 and 2000 by the Forest Fire Prevention and Control Project, covering the prevention, detection and control of vegetation and peatland fires in Sumatra and examining the policies and practices that underlie the continuing fires within the island. The wetlands of Sumatra cover over 11 million hectares, equivalent to 23 percent of the total land surface. They largely consist of peat swamps. Six out of the seven "fire zones" identified in Sumatra are rich in peatlands.

Transmigration programmes and estate crop companies have moved into these swamps in spite of their low soil fertility, poor infrastructure and their history of agricultural failure. The invasion is driven by the shortage of dryland areas and by the opportunity to extract valuable commercial swamp timber species whose sale off-sets the development costs of the estate companies.

There is a strong correlation between fire numbers / area burnt and the land clearing activities of oil palm companies and Sumatra has been hard-hit in this respect when compared to Kalimantan and elsewhere in Indonesia.

It is guessed that in each of the last four non-ENSO ("el Niño") years (i.e. 1996, 1998, 1999, and 2000) a few hundreds of thousands of hectares have been burned for agricultural purposes in Sumatra. At least 2 million ha of land in Sumatra have been deliberately cleared by fire over the last 10 – 15 years and it is conservatively estimated that a further 1 million ha will be cleared by fire in the near future, which will also affect environmental conditions in Singapore and Peninsular Malaysia.

The number of fires will be directly controlled by the rainfall: the wetter the year, the fewer the fires. It is expected that considerable numbers of fires will burn during the next el Niño year. "It is government's and individuals' 'profit now' land use policies and practices that are the cause of forest loss".

Other peatland oriented reports in this series include:
Nicolas, M.V.J. & Bowen, M.R., 1999. A field-level approach to coastal peat and coal-seam fires in South Sumatra Province Indonesia.
Anderson, I.P., Bowen, M.R., Imanda, I.D. & Muhnander, 1999. Vegetation fires in Indonesia: The fire history of the Sumatra Provinces 1996 – 1996 as a predictor of future areas at risk.
Anderson, I.P., Imanda, I.D. & Muhmandar, 2000. Vegetation fires in Sumatra, Indonesia: Reflections on the 1999 fires.

Summaries of all reports and English language CoPies of the first five reports from the series can be found on <http://www.mdp.co.id/ffpcp.htm>. The homepage also indicates where printed CoPies of reports six to fourteen and those in Bahasa Indonesia can be obtained from.

Charman, D.J., Hendon, D. and Woodland, W. (2000) The identification of peatland testate amoebae. Quaternary Research Association Technical Guide no.9, London. 147pp

A new guide for the identification of testate amoebae (a group of protozoans) in peatlands. It provides an identification key and taxon descriptions illustrated with photographs, plus reviews of various aspects of systematics, sample treatment, data analysis and interpretation.

Price £ 10.80 (QRA members) or £ 17 (non-members) incl postage and packing (UK/EU).

orders: Dr Simon G. Lewis: s.lewis@qmw.ac.uk

Chytil, J. & Hakrová, P. (ed.), 2001. Wetlands of the Czech Republic. Czech Ramsar Committee, Mikolov, 35 p.

Short descriptions of and basic information on all wetland sites of the Czech Republic with beautiful photos. For more information: Josef Chytil: jchytil@palava.cz

Davis, R.B. & Anderson, D.S., 1999. A numerical method and supporting database for evaluation of Maine peatlands as candidate natural areas. Maine Agricultural and Forest Experiment Station Technical Bulletin 175. 166p.

In Maine, non-tidal peatlands comprise the last major terrestrial ecosystem group largely undisturbed by humans. To make the best choices of areas to protect, an quantitative method of evaluation of the natural features of peatlands was developed – providing the fundamental tool for establishing peatland protection priorities. The method is applied to evaluate 76 Maine peatlands representing all the morphologic / hydrologic peatland types in the biophysical regions of the state.

For more information contact Ronald Davis:
rondavis@maine.edu

Dierßen, Klaus: Distribution, ecological amplitude and phytosociological characterization of European bryophytes. 2001. Bryophytorum Bibliotheca Vol. 056. 289 p. 140,- DM/US \$73.68

The present survey treats the distribution and ecology of the bryophyte species of Europe including Macaronesia. Distribution includes occurrence with

vegetation zones, regions differing with respect to the degree of oceanic / continental climate and altitudinal belts. Threat categories on European level are indicated. Ecological amplitudes are treated with respect to the site characteristics, particularly acidity, nutrient availability, pollution, humidity, heat balance, substrate quality and human impact (hemerobic steps). A characterisation of life strategy type and the occurrence of species within bryophyte synusia and plant community types are also given.

Flade, M. & Kozulin, A. (eds.), 2000. The ecology and conservation of floodplains and lowland mires in the Polesya region. Michael Otto Foundation Pripyat Projects, Minsk. 140p.

These are the proceedings to an international scientific conference held in 1997. Papers focus on a wide variety of conservational issues related to the Polesya mires, including political backgrounds, flora, fauna, and peatland use. All papers are printed both in Russian and English. For more information contact Michael Flade: martin.flade@lags.brandenburg.de

Heijmans, M., 2000. Effects of elevated CO₂ and increased N deposition on bog vegetation in the Netherlands. PhD Thesis, Wageningen University. 127 p.

The aim of this study was to investigate the effects of elevated atmospheric CO₂ and increased N deposition on bog vegetation in The Netherlands, with special attention to the relationship between peat mosses and vascular plants.

The results showed that elevated CO₂ benefits the growth of Sphagnum, but not necessarily at the cost of vascular plant growth. During three growing seasons of N addition, the Sphagnum layer became saturated with N, resulting in a larger availability of N and better growth of vascular plants, in the end reducing Sphagnum growth because of shading.

For more information, contact: Monique Heijmans: monique.heijmans@staf.ton.wau.nl

Kucerova, E.N., 2000. O svojstvach vodno-bolotnykh ugodij. Wetlands International, Moscow, 64 p.

Russian edition of Davies, J. & Claridge, C.F., 1993: Wetland benefits. The potential for wetlands to support and maintain development. Asian Wetland Bureau Publ. no. 87. For more information, contact: Olga Anisimova: Anisimova@wwf.ru

Lamers, L.P.M., 2001. Tackling biochemical questions in peatlands. PhD thesis Nijmegen, 161 p.

Collection of published and submitted articles with general introduction and synthesis on the biogeochemical effects of eutrophication, desiccation,

sulphur pollution, acidification and intoxication in peatlands. Some conclusions of the thesis:

- Increased SO₄²⁻ concentrations leads to increased mobilisation of phosphate in fens and marshes ("internal eutrophication") – even, but only if P availability in the soil/sediment is high enough.
- Increased SO₄²⁻ concentrations in fens only induce accumulation of sulphide to phytotoxic concentrations if free Fe concentrations in the pore water are low. Otherwise the system is protected by FeS_x formation.
- At least in young raised bogs and transition fens, calcareous groundwater in deeper peat layers produces higher carbon dioxide concentrations (both chemically and microbially) and methane concentrations (microbially), affecting buoyancy of peat and Sphagnum, and stimulating Sphagnum growth. This view contrasts with the traditional view of raised bogs being merely ombrotrophic.
- Increased airborne nitrogen inputs leads to accumulation of nitrogen in Sphagnum, keeping nitrogen supply to rooting plants low. At a certain level this „filter“ becomes saturated and N supply to vascular plants increases, leading to the invasion of *Betula* sp. and *Molinia caerulea*.
- Only by knowing the biogeochemical key processes and key factors, peatland restoration ecology will go beyond the trial and error level, enabling directed and efficient ecological measures, and predictions about future prospects.

For more information contact Leon Lamers: leon.lamers@sci.kun.nl

Landesamt für Umwelt, Naturschutz und Geologie Mecklenburg-Vorpommern, 2001. Renaturierung im Recknitztal. LUNG-Mecklenburg-Vorpommern, Güstrow. 58p. (in German)

Information brochure on the restoration project of the Recknitztal fens in Northeastern Germany, financially supported by the EU Life programme. For more information contact: pressestelle@lung.mv-regierung.de

Nikolaev, V.I., 2000. Peatlands of the Upper Volga region. Birds. Russkiy Universitet, Moscow. 216p. (in Russian)

This book presents studies on the avifauna of the Upper Volga region (Tver oblast, central part of European Russia), carried out from 1980-1999. A total of 202 species was observed in mires, including 146 breeding species. The relationship of the avifauna to peatland use, micro-climate, humidity, fire relief, and mire area was studied and dynamics of bird populations is shown. For more information contact Tanja Minaeva: tminaeva@wwf.ru

Otchagov, D.M., Reijnen, R., Butovsky, R.O., Aleshenko, G.M., Eremkin, G.S. & Esenova, I.M., 2000. Ecological networks and biodiversity in Central Russia. IBN Research report 99/2. 80p. (in Russian)

Russian, more detailed, edition of the 1999 English publication (see IMCG Newsletter 2000/1). For more information contact

Dmitri Otchagov, VNIIPriroda, Sadki-Znamenskoje, 113628, Moscow. Fax: (095) 423 23 22

Schröder, B., 2000. Zwischen Naturschutz und Theoretischer Ökologie: Modelle zur Habitatsignung und räumlichen Populationsdynamik für Heuschrecken im Niedermoor. PhD Thesis Technical University of Braunschweig. 230 p. (in German)

This thesis deals with models of locust populations in fen peatlands, in the context of restoration and management questions. For more information contact Boris Schröder: b.schroeder@tu-bs.de

Succow, M. & H. Joosten (eds.), 2001. Landschaftsökologische Moorkunde. 2nd edition. Schweizerbart, Stuttgart. 622 p. DM 149,- (in German)

Compared to the first edition of this work, which was out of print shortly after being published, the complete text has been updated and revised. The dichotomy of viewing mires both as small scale ecosystems as well as integrating them into a larger scale landscape context was kept and the principal components of mires, that is the substrate, water, relief and vegetation are characterised in detail. The book covers mires worldwide, but due the focus of the 33 authors, many examples are from central Europe and Northern Germany.

Many colour illustrations and more than 600 large format pages make this book a valuable. For further information and a complete table of content: <http://www.schweizerbart.de/pubs/books/landschaft-181200004-desc.html>

Švė as, S., Drobelis, E., Balė iauskas, L. & Raudonikis, L., 1999. Important wetlands in Lithuania. OMPO Vilnius, Vilnius. 192p.

The results of the Lithuanian wetlands inventory program are compiled in this book. It is the first publication describing important elements of the most important Lithuanian wetlands. It presents the Lithuanian wetland database and covers the wetlands site by site, starting with Ramsar sites, followed by Ramsar shadow-list sites, potential Ramsar sites, and wetlands of national and local importance. Available from: OMPO VILNIUS, P.O. Box 2744, LT-2021 Vilnius, Lithuania.

Szurdoki, E., Barati, S., Molnár, A. & Sümegi, P. (eds.), 2000. Tőzegmohas élőhelyek Magyarországon: kutatás, kezelés, védelem. CEEWEB Munkacsoport, Miskolc. 184p. (in Hungarian)

Papers of a workshop held in March 2000, including general papers on development and classification of mires and several specific papers about research and restoration of the Mohos-lakes in northern Hungary. Also included is a valuable 27 page bibliography of Hungarian mires.

For more information, contact Erzsébet Szurdoki szurdoki@bot.nhmus.hu

Wo• ejko, L., 2000. Dynamika fitosocjologiczno-ekologiczna ekosystemów • ródlickowych polski pó• nocno-zachodniej w warunkach ekstensyfikacji rolnictwa. Akademia Rolnicza w Szczecinie, Szczecin, 112 p. (in Polish).

Habilitation thesis on the vegetation and ecology (hydroecology, hydrochemistry, peat stratigraphy) of spring mire complexes in North-western Poland. With special attention to phytosociological classification, the conservational value of plant communities, and to the effects of land use of the spring complexes and their surroundings on the mires. With some proposals for conservation and management.

For more information: contact Les• aw Wo• ejko: botanika@agro.ar.szczecin.pl



UPCOMING EVENTS

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

International Field Symposium and Excursion: West Siberian Peatlands and Carbon Cycle: past and present

20-24 August 2001, Noyabrsk, Russia

See previous IMCG Newsletter for details, contact the IMCG Secretariat, or visit <http://www.imcg.net>

Peatlands for people: Natural resource functions and sustainable management

Jakarta, Indonesia, 22 – 24 August 2001

See elsewhere in this Newsletter or contact:

Dr. Bambang Setiadi, bsetiadi@bppt.go.id

Asian Wetland Symposium 2001

Penang, Malaysia, 27 – 30 August 2001

Please visit the website for information concerning the Symposium: <http://aws2001.domainvalet.com>

Biodiversity of the European North theoretical basis of the study, socio-legal aspects of the use and protection

Petrozavodsk, Russia, 3-7 September 2001

For details: see previous IMCG Newsletter, contact the IMCG Secretariat, or visit <http://www.imcg.net>

Symposium: Irish Raised Bogs- Conservation, Utilisation and After-Use

Ireland, 4 - 12 September 2001

For details: see previous IMCG Newsletter, contact the IMCG Secretariat, or visit <http://www.imcg.net>

Changing Wetlands: new developments in wetland science

Sheffield, UK, 11th - 13th September 2001

For details: see previous IMCG Newsletter, contact the IMCG Secretariat, or visit <http://www.imcg.net>

Training course on wetland management

Armenia, 9 - 23 September 2001

See also elsewhere in this Newsletter or contact: Karen Jenderedjian, jender@nature.am

Pan-European NGO Seminar & Tour on Sustainable Energy

Denmark, 16-22 September 2001

Study Tour (September 16- 18): Visiting some of the best examples of sustainable energy solutions

Seminar (September 18-22):

- Meeting of NGOs from European networks for sustainable energy solutions to solve the problems of nuclear energy and climate change
- Overview of practical and political frontiers for sustainable energy development
- A forum for discussions and planning of NGO activities

The total fee is 2800 DKK (375 EUR) including food, accommodation, and travel in Denmark starting and ending in Copenhagen. For participation in seminar only (Sept.18-22) the fee is 1000 DKK

including food and accommodation, but without travel to/from Folkecenter. Grant support is available to cover transport and participation fee for participants from Central and Eastern Europe for a limited number of participants.

Application deadline: July 15, 2001

More information at www.orgve.dk/inforse-europe or contact INFORSE-Europe, Gl. Kirkevej 56, DK-8530 Hjortshoej, Denmark, Tel.: +45-86227000; Fax:+45-86227096 ove@inforse.org

Workshop „Final report of the Irish/Dutch Raised Bog Study“

Clara/Tullamore County Offaly, Ireland,

4 – 7 October 2001.

The objective of the Irish-Dutch Raised Bog Study (1989 – 1994) was to draw up general applicable guidelines for the conservation of bog areas and to gain a better insight into the ecological and hydrological conditions and chances of survival of raised bogs in Ireland. Special attention was paid to the raised bogs Raheenmore and Clarabog, where the research was done. The study was followed by a Raised Bog Restoration Programme (1994 – 1999) and the insight was also translated to provide guidelines for bog restoration projects in the Netherlands. Objectives of the workshop are:

- To inform others of the work done on Irish/ Dutch raised bogs
 - To discuss the implications of this work for the conservation of raised bogs, both in Ireland and elsewhere, especially with respect to assessment of current status, prediction of impacts, monitoring, restoration and management planning.
 - To develop further international research initiatives.
- Costs of the Workshop are IEP 350, including accommodation, transport and meals during the workshop. For further information contact: Nanda ten Grotenhuis: N.Grotenhuis@sbb.agro.nl

IPS Workshop: Peat in Horticulture

Amsterdam, The Netherlands, 30 October 2001

Theme of this 3rd IPS Meeting on Peat in Horticulture is Peat and its Alternatives.

For more information please contact:

IPS Netherlands, Borgerbrink 58, NL-7812 ND, Emmen, The Netherlands
Tel.: +31 591 612367, Fax.: +31 591 648198
wimtonnis@home.nl

VIII INTECOL Congress: Ecology in a changing World

Seoul, Korea, 11-18 August 2002

For more information contact:

Intecol Secretariat, Lungiana Museum of Natural History, Fortezza della Brunella – 54011 Aulla, Italy.
Tel.: +39 0187 400252, Fax: +39 0187 420727
farina@intecol.org <http://www.intecol.org>

IMCG SYMPOSIUM FRANCE 2002

10-22 July 2002

Organizing Committee:

(named by order of responsibility)

Dr Philippe JULVE (PJ), University of Lille 1.

M. Jean-Marc HERVIO (JMH), Espaces Naturels de France.

Dr. Virginie VERGNE (VV), University of Lille 1.

M. Nicolas DUPIEUX (ND), Espaces Naturels de France.

Dr. Bruno de FOUCAULT (BdF), University of Lille 2.

M. Olivier VILLEPOUX (OV), LEPA de Brioude

Dr. Olivier MANNEVILLE (OM), University of Grenoble.

Mrs. Arlette LAPLACE-DOLONDE (ALD), University of Lyon.

All are members of the GET, Groupe d'Etudes des Tourbières (French Group for mire studies)

Local Teams responsables :

Limousin : Mrs Cathy LINET (CL)

Auvergne : to be designated

Loire : M. Laurent RUSSIAS (LR) (coordination with B. Coic)

Alps : M. Bruno COIC (BC)

Jura : to be designated

Global Symposium Programme (13 days):

Sites to be visited during excursion (will be slightly modified), transect from Central Massif of France towards Jura :

Limousin : Longeyroux, la Mazure, others...

Auvergne : Chambedaze, Bourdouze, La Barthe, plaine Jacquot, others...

Loire : La Pigne, La Litte, La Verrerie, bois de la Morte, others...

Alps (Rhône valley): Grand-Lemps, Marais de Lavours, others...

Jura : Drugeon, Remoray, Russey, Frasnes, others...

These sites show mires from oceanic to continental, from plain to mountainous belts (elevation from 200m to 1600m). We will see: soligenous mires, limnogenous mires, topogenous mires, mostly with geotrophic, and ombrotrophic parts. In each zones natural interesting sites and sites with management programmes will be visited.

D0, Tuesday 9/7/2002:

arrival in Paris, transfer from airport Charles de Gaulle (CdG main airport of Paris is located 60km from the city, people will be gathered here and transported towards Paris leaded by members of organizing committee).

Evening : night tour in Paris.

D1, Wednesday 10/7/2002:

morning: opening meeting in Ministry of Environment.

Afternoon (14h-18h): Colloquium, 6 oral presentations (20 min + 10 min discussion)

D2, Thursday 11/7/2002:

morning (9h-12h): Colloquium, 5 oral presentations (20 min + 10 min discussion)

afternoon (departure 14h) : transport towards Limousin (bus, train ?)

D3, Friday 12/7/2002: visit sites Limousin

D4, Saturday 13/7/2002:

visit sites Limousin, transport towards Auvergne (bus)

D5, Sunday 14/7/2002: visit sites Auvergne

evening : national day celebration "14 juillet"

D6, Monday 15/7/2002: visit sites Auvergne,

transport towards Loire (bus)

D7, Tuesday 16/7/2002: visit sites Loire

D8, Wednesday 17/7/2002: visit sites Loire, transport towards Rhône plain (bus)

D9, Thursday 18/7/2002: visit sites Rhône plain, transport towards Jura (bus)

D10, Friday 19/7/2002: visit sites Jura

D11, Saturday 20/7/2002: visit sites Jura

D12, Sunday 21/7/2002: visit sites Jura,

morning: official inauguration of the "Pôle Tourbières" (national resources centre for mires), official lunch.

afternoon: free or resolutions final work.

D13, Monday 22/7/2002:

morning: 9h-12h30: IMCG congress, resolutions, ballot.

afternoon: return towards Paris (high speed train: "TGV") return-home for proximal congress attendants.

evening and night in Paris for distal congress attendants (free but can be organised on request).

D13+1, 23/7/2002 : transfer to CdG airport, return-home for distal congress attendants.

Costs of the symposium, including transports, meals and all accommodations are at present estimated around 5000 FF per person (762 EUR, 625 USD). This price could be reduced following actual subsidies negotiation with ministries (Environment, Foreign affairs). Help will be possible for people from countries with currency problems.

PRE REGISTRATION FORM

To be returned before 14th July 2001, to philippe.julve@wanadoo.fr, or:
Ph. Julve, 28 rue des aubépines, 59270 METEREN (France).
The second circular will be sent only to people having pre registered.

your name:
your E-mail address:
your postal address:
your phone:
your fax:

Name of your organisation:

Do you want to make a presentation or present a poster during colloquium ?
(in this case please give title and short summary (half page) describing content).

Special requirements (food, accomodations, subsidies needs or others...) :