



Editorial

The first Newsletter in a new year. Therefore: best wishes to all for the year 2000. We thank all who have contributed to this Newsletter. As with the previous Newsletter, we took the liberty to (sometimes vigorously) edit available texts. Any mistakes and omissions are entirely our responsibility.

In this Newsletter you may find a wealth of information, including the most up-to-date, but not yet final, state of affairs on the IMCG Quebec Field Symposium, Conference, and Congress. Things are still changing and developing in Quebec. We will keep you informed.

The next Newsletter 2000/2 is planned to appear in March, before the Workshop in Lagow. Deadline for submitting material is 27th February. Please inform us on anything happening. In the meantime, keep an eye on the IMCG web-site: <http://ibs.uel.ac.uk/imcg/>

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The **International Mire Conservation Group (IMCG)** is an international network of specialists having a particular interest in mire and peatland conservation. The network encompasses a wide spectrum of expertise and interests, from research scientists to consultants, government agency specialists to peatland site managers. It operates largely through e-mail and newsletters, and holds regular workshops and symposia. For more information: consult the IMCG Website: <http://ibs.uel.ac.uk/imcg/>
IMCG has an elected chairman (Richard Lindsay), a Working Group (being a group of people that volunteered to keep the IMCG business going), and a Decision Making Group of 8 (now 7 since Marina Botch's death) elected members from various parts of the world, that has to take decisions between congresses. The composition of the Working Group recently changed: see this Newsletter.

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Minutes IMCG Working Group meeting

29 Nov. 1999, Freising (Germany)

Present: Richard Lindsay (RAL), Andreas Grünig (AG), Asbjorn Moen (AM), Hans Joosten (HJ), John Couwenberg (JC, min.).

1. Quebec 2000 Field symposium

The offered BC excursion is seen as too expensive; 4 alternative excursions near Quebec were discussed (in order of preference):

- change one of the existing post congress tours into a pre congress tour and put more emphasis on conservation;
- use one of the offered post-congress tours with more emphasis on conservation issues;
- a 5 day combination of selected existing offered day trips;
- no field symposium;

Clayton Rubec will check possibilities with the organisational committee of Quebec2000 on the 7th of December and will inform RAL.

See elsewhere in this newsletter.

2. Internal IMCG Congress

To take place on Sunday 6 August (this is before the Quebec2000 event starts) from 9-17h; in preparation of the formal status of the IMCG:

- PHILIPPE JULVE prepares constitution according to French law;
- working group members prepare proposals for (executive) board members;

The congress will feature a discussion on the formal organisation:

- constitution, incl. mission statement;
- membership and membership fee;
- election of board and executive board members;

See elsewhere in this newsletter.

3. IMCG Conference

- to be held Thursday 10 August (? see elsewhere);
- morning: three hours and 30 minutes (with 30-minute slots) on general studies/ projects;
- afternoon: three hours (with 20-minute slots) on regional studies/ projects;

A list of subjects and speakers was prepared. RAL will hand this list to JAN SLIVA, who will organise the conference (address the proposed speakers, get their abstracts, before 15 January). There will also be an IMCG poster session during the Q2000 event to cover other and suitable studies/ projects.

See elsewhere in this newsletter.

4. Lagow classification and terminology workshop March 1999

Greifswald (HJ, JC &c.):

- takes over the general coordination of the classification activities from RAL;
- supports Leslaw Wolejko with the organisation.

In Lagow also IMCG internal matters will be discussed, including the IMCG internal congress (see

point 2) and IPS/IMCG wise use guidelines (Donal Clarke of IPS, Bord Na Mona will be invited)

See elsewhere in this newsletter.

5. IMCG newsletter

Greifswald (HJ, JC &c.) has taken over responsibility for production of the IMCG newsletter. As communication on the address list has been sub-optimal, Birmensdorf (Margrit von Euw) and London (RAL) will sort things out to guarantee a regular, rapid, and reliable update and exchange of addresses. Central focal point of addresses is London (RAL); updates on the address list will also be provided to Greifswald (HJ). The next newsletter is envisaged for January 2000

6. Working Group matters

Rob Stoneman has dropped out of all IMCG activities. It was felt that the operational power of the WG further had become too small also because of IMCG's increasing activities. New WG members were proposed. WG members should:

- commit themselves to meet 3 times a year
- have active input

The following new WG members were proposed - next to their input in the normal organisational discussions, possible tasks were identified:

- Asbjorn Moen, AM will take over regionality work from Michael Steiner; AM will give input in Q2000
- Andreas Grünig, AG will take over the STRP work from Rob Stoneman; further input will depend on his coming change of jobs; AG will prepare a piece on the STRP for the next (this, red.) newsletter;
- Jan Sliva, JS will organise the Q2000 conference
- Mette Risager (to be approached by RAL), MR will be asked to prepare the TELMA2000 strategy, to be launched in Q2000; RAL will support her
- Tatiana Minaeva (to be approached by RAL), TM will be asked for input to TELMA2000
- Herbert Diemont has offered to act as IMCG fund raiser

Next WG-meetings:

- Lagow, Poland, 24-28 March
- Quebec2000
- possibly a meeting in between (June in Moscow?): the March WG meeting will decide on this

7. IMCG as WI-Expert Group?

The status as expert group is seen to have only advantages, therefore preparations to acquire that status will be continued (action: RAL)

See elsewhere in this newsletter.

8. Proceedings of the Japan Field Symposium (1996)

Manuscripts are under review in London (secr.) and will soon be sent back to authors for revision (action: secr., RAL). What will happen with the Japanese contributions is still unclear. The proceedings will be printed in Japan. It was stressed these proceedings should be ready by Q2000

9. IMCG Webpage

The IMCG webpage is an important means of communication and presentation and should get

adequate attention. RAL will look into the possibilities of improvement with respect to updating frequency and lay-out.

IMCG as WI specialist group?

For some time, the IMCG Working Group has been considering making IMCG into a specialist group of Wetlands International. We will decide on that during the Quebec-Congress in August, and discuss on the subject in March (Lagow, Poland). In preparation to these discussions, we present here some background information on Wetlands International and its Specialist Groups.

Wetlands International is the only global, non-profit organisation dedicated to the conservation and sustainable use of wetlands, their species, habitats, and water resources. Wetlands International compiles base-line data on the state of the world's wetlands, including wetland inventory and waterbird monitoring and on issues related to these wetlands which underpins conservation programmes world-wide.

Wetlands International was formed in 1995 when three regionally based organisations devoted to wetland conservation created a global alliance: the International Waterfowl and Wetlands Research Bureau (IWRB), the Asian Wetland Bureau (AWB), and Wetlands for the Americas. Their collective work dates back more than 40 years and by merging in this way, basic scientific research and its conservation use can be delivered at a global level.

The role of Wetlands International in the conservation field is well-established. IWRB was instrumental in the creation of the Ramsar-Convention (1971), the first global inter-governmental treaty for the conservation of natural resources. That role has evolved and positioned Wetlands International as a lead provider to the Convention of support for wetland inventory, monitoring, assessment, training, and education. Increasingly Wetlands International helps local constituents take conservation actions which uphold the convention's decree of "wise use". Wetlands International also works closely with other Conventions, for example the *Convention on the Conservation of Migratory Species of Wild Animals* (CMS), in development of migratory waterbird conservation strategies.

Wetlands International has a core staff of around 100 people in 16 offices world-wide and operates an active world-wide network of wetland specialists, that includes national representatives from 55 countries, scientists, and experts in over 20 wetland and waterbird specialist groups, and many other organisations who collaborate on projects. Wetlands International is governed by a Board of Directors which is overseen by an International Advisory Council of over 150 individuals. The Advisory

Council is composed of representatives of the National Governments, Donor Organisations, Specialist Group Co-ordinators, Partner Organisations, and members-at-large.

What are Specialist Groups?

Specialist Groups are networks of expert scientists who provide information and advice in support of Wetlands International's programmes and projects. The network of Specialist Groups is a vital part of Wetlands International, essential for the delivery of wetland and wetland species expertise. There are currently 21 Specialist Groups: 14 covering waterbird taxa and 7 thematic groups on wetland issues. Overall the Specialist Group network involves over 2,000 people. Waterbird Specialist Groups are operated as a 'Waterbird Network' jointly with IUCN – Species Survival Commission and BirdLife International.

What do Specialist Groups do?

Specialist Groups:

- provide strategic guidance to Wetlands International's organisation, through representation on the Board of Members, Board of Directors, and Regional Councils
- contribute to information and advice on research, conservation, and management of wetlands and wetland species, through accessing expert networks and developing partnerships
- provide information and technical advice as part of Wetlands International's technical support and input to global conventions (Ramsar, Bonn, Convention on Biological Diversity)
- undertake or lead projects on behalf of Wetlands International
- represent Wetlands International at external fora and to other organisations
- promote and publicise the role of Wetlands International in wetlands and waterbirds conservation to the global scientific community.
- Many Specialist Groups produce regular Bulletins and newsletters for their members, hold conferences and workshops, and publish proceedings volumes. Specialist Groups have, or are developing, registers of members' interests and expertise.

How do Specialist Groups operate?

Specialist Groups have developed in a variety of ways, and their sizes and structures reflect this. Some are large groups with an open free membership, others are smaller networks of invited experts. One, the International Wader Study Group (WSG), is an

independent non-governmental (non-profit) organisation that acts as Wetlands International's Wader Specialist Group. Each Specialist Group is led by one or more Co-ordinators, who represent their groups on Wetlands International's Board of Members. Specialist Groups have a global remit, although not all are currently active in all parts of the

world. Specialist Groups are at present developing their regional structures to provide more direct links with Wetlands International's regional organisation. A number of Specialist Groups already have Regional Co-ordinators covering particular geographic areas, and Assistant Coordinators dealing with particular topics or species.

Joint Working Meeting of the International Peat Society and the International Mire Conservation Group, Freising, Germany 27-28 November 1999

by Clayton Rubec

At the invitation of the Executive Boards of the International Peat Society (IPS) and the International Mire Conservation Group (IMCG), a joint Working Meeting was held in Freising, Germany on November 27-28, 1999. This meeting which has become called "Surwold II", was planned as a follow-up to the November 1997 meeting convened by these organizations in Surwold, Germany.

Twenty-three experts on peatland management and scientific issues from 12 nations participated in this meeting: Jens Dieter Becker-Platen (Germany, IPS), Joachim Blankenburg (Germany, IPS), Donal Clarke (Ireland, IPS), John Couwenberg (Germany, IMCG), Herbert Diemont (Netherlands, IMCG/IPS), Andreas

Grünig (Switzerland, IMCG), Gerry Hood (Canada, IPS), Heinrich Höper (Germany, IPS), Hans Joosten (Germany, IMCG/IPS), Piotr Ilnicki (Poland, IPS), Richard Lindsay (United Kingdom, IMCG), Randy Milton (Canada, Ramsar), Asbjörn Moen (Norway, Biodiv. Conv./IMCG), Juhani Päivänen (Finland, IPS), Faizal Parish (Malaysia, Global Env. Network), Reidar Pettersson (Sweden, IPS), Jack Rieley (United Kingdom, Ramsar/IPS/IMCG), Mette Risager (Denmark, Wetl. Intern./IMCG), Clayton Rubec (Canada, Facilitator), Alan Shaw (United Kingdom, IPS), Jan Sliva (Germany, IPS/IMCG), Raimo Sopo (Finland, IPS), Christine Weissmann

Review of Action Points From the 1997 Surwold "I" Meeting

Surwold 1997 Action Item	Status 1999
1: IMCG and IPS will establish a Joint Peatland Terminology Working Group to bring together peatland, mire and peat terminology and work towards a joint IMCG/IPS publication, possibly by the year 2000.	This project is underway and it is hoped that it will be completed in 2000.
2: The Joint Working Group will organize an international workshop or symposium on this theme at an appropriate date.	The Joint Working Group has been communicating by e-mail; no formal workshop was convened.
3: The members of this Joint Working Group will meet during the IMCG Workshop on Global Mire Classification to be held at the University of Greifswald in Germany March 1998.	The Greifswald Workshop in March 1998 and a second one in Popelna, Czech Republic in March 1999 were convened. A third meeting is planned in Poland in March 2000.
4: The IPS Secretariat will organize printing and publication of a Glossary on Peat and Peatlands as a special issue of the International Peat Journal.	This project is ongoing with a Special Symposium on this proposed for Quebec 2000. The publication is being planned for release when completed.
5: Both IPS and IMCG will participate in the Millennium Wetland Event in August 2000 at the invitation of Canadian partners in cooperation with INTECOL and the Society of Wetland Scientists. IMCG and IPS will work closely together in the design and implementation of their respective programs during this Event.	Both organizations are central organizations to the ongoing implementation of the Millennium Wetland Event. The IPS 11 th Global Congress that includes Commission Meetings, Symposia and Round Tables and an IMCG Field Symposium and Congress will be held in association with Quebec 2000 in August 2000.
6: IPS and IMCG will establish a Joint Wise Use Working Group to prepare a Discussion Paper on Wise Use Guidelines for Global Peatlands and Mires. Specialists in the IPS and IMCG organizations will take the lead on a mutually agreed set of topics and write sections of the paper.	The Working Group has been created and a draft of the Guidelines document was tabled for advice and review at the 1999 Freising Workshop.

7: The Joint Wise Use Working Group will meet in the Fall of 1998 to pull together materials prepared by specialists in IMCG or IPS. These Guidelines will be published and distributed to participants of the Ramsar COP7 in Costa Rica in May 1999.	The draft paper was not completed until later in 1999.
8: The IMCG will lead preparation of a paper on global mire types and mire regions for the proposed second edition of the IPS book on Global Peat Resources.	The Global Peat Resources book will not be republished by IPS; thus, the IMCG contribution has not proceeded as proposed.
9: The IMCG and IPS will have at least one joint meeting of selected participants and board members each year to focus on key issues of mutual interest.	The second meeting was planned and forms the November 1999 Freising Workshop. Less formal meetings of subgroups have been organized on specific areas also.
10: The IPS and IMCG will develop stronger information linkages with the Ramsar Convention, Wetlands International, IUCN Wetlands Program, Society of Wetland Scientists, INTECOL and other appropriate agencies or groups. This will be done through such things as exchange of newsletters on a regular basis.	Such linkages are actively being established as exemplified by the GBF13 Workshop, participation in Ramsar COP7 and the working sessions in November 1999 on the Wise Use Guidelines and GAPP. Linkages with SWS, Wetlands International, and INTECOL were strengthened through the 1998 SWS Alaska Workshop on Peatlands with IUCN-CEM and the ongoing implementation of Quebec 2000.
11: IPS and IMCG will host an international peatlands wise use workshop and information booth on global peatland management in association with the Ramsar Convention meetings in Costa Rica in May 1999. The workshop will be developed in consultation with international partner agencies.	Both IPS and IMCG attended the May 1999 COP7 as Official Observer NGOs and provide input to adoption of Recommendation VII.1. The proposed Joint Workshop was expanded and became the Peatlands Wise Use Workshop of the IUCN GBF13 in May 1999. IMCG is compiling the Proceedings for the GBF13 Workshop. IPS shared booth space with SWS, Ducks Unlimited, Wildlife Habitat Canada, the Canadian Wetlands Council, INTECOL and Quebec 2000 at the Ramsar COP7.
12: IPS and IMCG will cooperate in organizing a workshop on peatland/mire evaluation models with case studies for presentation at the Quebec Millennium Wetlands Event in the year 2000.	There have been no identifiable activity in this area yet

ACTION 1: Future IPS-IMCG meetings will include a regularized process for reporting on progress in regards to prior Actions Items and new issues.

Climate Change and Global Peatlands

The Freising Statement: see elsewhere in this newsletter.

Raimo Sopo circulated information on a Finland Ministry of Trade and Industry project on the role of peat in a national greenhouse gas balances assessment as well as several other papers on carbon accumulation and effects of forestry in Finland (see elsewhere in this newsletter).

ACTION 2: The Freising Statement was adopted outlining a “Joint Position Paper of the IMCG and IPS on the Role of Peatlands in Human-Induced Climate Change”. This text was transmitted to the IPCC and other appropriate government agencies for consideration.

Global Action Plan for Peatlands (GAPP):

A separate Working Meeting explicitly to redraft the *Global Action Plan on Peatlands* was convened in Freising on November 30-December 1, 1999 (see elsewhere in this newsletter). In preparation of this meeting an update on the issue was presented. The

relationship of the *Wise Use Guidelines for Global Mires and Peatlands* (see below) vis-à-vis GAPP was clarified: the Guidelines will be one of many supporting actions assisting in implementation of the *Global Action Plan on Peatlands*. They are, however, a fully separate initiative and not in any manner an annex to the Action Plan.

ACTION 3: The development of a revised Global Action Plan on Peatlands in the November 30-December 1, 1999 GAPP Meeting (see elsewhere in this newsletter).

ACTION 4: A workshop on the status and ongoing consultations as well as implementation of GAPP will be held during the Millennium Wetland Event in Canada in August 2000.

Wise Use Guidelines:

Donal Clarke on behalf of the Joint Wise Use Working Group (Donal Clarke, Richard Lindsay, Jack Rieley, Hans Joosten) reported on the completion of a first working draft of the document entitled “*Discussion Draft Four: Wise Use Guidelines for Global Mires and Peatlands*”. This draft text was discussed in particular on the overall format, central concepts, missing materials or data, and time scale for completion. It was agreed that the

text is to be targeted at Government staff involved in managing natural resources; and must therefore be presented in a manner suited to their needs. A second more detailed information document for IPS, IMCG, and other partners was suggested.

ACTION 5: The Joint Wise Use Working Group continues to develop the *Wise Use Guidelines for Global Mires and Peatlands*, making a new draft available for discussion in August 2000 during the IPS and IMCG meetings in Canada.

Terminology:

Several projects are leading forward to a Peat Dictionary possibly in CD-ROM and/or Web Site formats; a Glossary of Peat and Peatland Terms; and a Joint Workshop of IPS and IMCG on these topics at Quebec 2000. A draft paper entitled "IPS Terminology" was distributed.

ACTION 6: A Joint Symposium or Round Table Workshop on a Peat Dictionary and Peat and Peatland Terminology will be organized at the Quebec 2000 Millennium Wetland Event.

ACTION 7: A Glossary of Acronyms of peatland and wetland related organizations under discussion in the

IPS, IMCG, wise use, terminology, Ramsar, and GAPP meetings and networks will be developed.

Next Meeting of IPS and IMCG:

It was agreed that the joint meetings to date (Surwold, November 1997 and Freising, November 1999) have been valuable. A specific time and date was not discussed for any future meeting but it was agreed to do so noting that the Quebec 2000 Event is only eight months away. Several meetings of IPS or IMCG working groups are expected in the next six months or so:

- IMCG meeting on mire classification March 2000 in Poland
- IPS Commission II meeting on carbon cycling May 17-18, 2000 in Stockholm

Thanks to Jan Sliva for his efforts in arranging the logistics and accommodations in Freising; thanks Jan for your detailed preparation of an interesting field trip that was, regrettably, canceled due to recent severe snow storms resulting in blocked mountain roads in the region.

**Working Meeting on Revision of the Global Action Plan on Peatlands
Convened by IUCN Commission on Ecosystem Management, Freising,
Germany, November 30- December 1, 1999**

by Clayton Rubec

This meeting was convened under the auspices of the IUCN Commission on Ecosystem Management (IUCN-CEM) in cooperation with Wetlands International, the Scientific and Technical Review Panel (STRP) of the Ramsar Convention, the International Peat Society (IPS), and the International Mire Conservation Group (IMCG). The meeting was planned as a follow-up to the May 1999 direction received by the Ramsar Convention COP7 to develop and bring forward a Revised Annex to the COP7 Recommendation VII.1 on a Draft *Global Action Plan for Peatlands (GAPP) Regarding Wise Use and Management*. This revised GAPP was requested to be tabled and considered at the Ramsar Standing Committee Meeting in Switzerland running from November 29 to December 2, 1999.

Nineteen invited experts on peatland management and scientific issues from 10 nations participated in this meeting. Next to those attending the preceding IPS-IMCG meeting, the participants included Ed Maltby of IUCN-CEM (chair) and Henk Zingstra of Wetlands International.

Revision of the GAPP

The genesis of the *Global Action Plan on Peatlands (GAPP)* was reviewed for participants by Ed Maltby and Clayton Rubec. The Action Plan represents the next step in a series of consultation efforts to

encourage inclusion of peatlands in the workings of the Ramsar, Biodiversity, and Climate Change Conventions.

This November 30-December 1, 1999 meeting undertook intensive review of all elements of a Third Draft of the Action Plan. Extensive suggestions, developed by three subgroups working in parallel, for rearranging and expanding the eight opportunities, development of a vision statement, clarification of objectives and partners, and insertion of linkages to the Convention on Biological Diversity and Framework Convention on Climate Change processes and structures, as well as to other international ongoing initiatives such as the Ecosystem Approach and Millennium Ecosystem Reviews, were provided to the Drafting Team.

The Action Plan was revised and produced during the two-day meeting and prepared for transmittal to a Ramsar Standing Committee Meeting in Switzerland for delivery on December 2, 1999. The Plan was provided with an introductory letter from the Government of Canada outlining specific requests for actions by the Standing Committee. These include a request that the Ramsar Bureau transmit the GAPP to Ramsar Contracting Parties, Ramsar Non-Government Partners, and subsidiary bodies of the Climate Change Convention and Convention on Biological Diversity to facilitate further consultation.

Representatives of the Governments of Canada and Norway expressed their government's desires to continue to facilitate and support the GAPP initiative. A workshop on the status and ongoing consultations as well as implementation of GAPP will be held

during the Millennium Wetland Event in Canada in August 2000.

The complete text of the revised Action Plan is printed below.

Global Action Plan for Peatlands (GAPP) Regarding Wise Use and Management Revised Annex to Ramsar COP7 Recommendation VII.1, Consultation Paper December 1999

Introduction

Peatlands are recognized throughout the world as a vital economic and ecological resource yet have until recently received little attention from the international conservation community. Peat-forming wetlands such as bogs, fens, swamp forests and mangroves constitute over 50% of the World's wetlands. They are found in all biomes but particularly the boreal and tropical areas of the planet. These peatlands are increasingly seen to be important ecosystems contributing to global carbon conservation relevant to climate change, to biological diversity, to global water issues, and to many wetland functions valuable to human communities.

There is a wide range of threats to peatlands that in some cases require urgent national and/or international action. A recent example is the impact of tropical peatland fires. The opportunities for wise use and management of the World's remaining peatland assets are constrained not only by limited scientific and technical information but also by the effects of social, economic and cultural factors. Contracting Parties and partners need to evaluate the significance of these constraints at various scales and within appropriate national frameworks.

Peatlands have become recognized as a vital part of the World's wetland resources. In March of 1996, in advance of COP6 of the Ramsar Convention, a series of partner agencies cooperated in organizing an International Workshop on Global Mire and Peatland Conservation. This was one in a series of international working meetings focused on drawing global attention to the need for action on peatland wise use and management in the context of sustainable development. These meetings include the 1994 Sixth Meeting of the International Mire Conservation Group and the 1997 Peatland Convention organized by the Scottish Wildlife Trust. Peatlands were subsequently recognized as an under-represented wetland type in the global network reflected in the List of Wetlands of International Importance and Recommendations of COP6 and COP7 of the Ramsar Convention in 1996 and 1999. Through the Ramsar Convention, the cooperative efforts of government, industry and non-government organizations have now developed elements of a *Global Action Plan for Peatlands* focused on wise use and management of peatland ecosystems.

Peatlands have a wide international significance. At COP4 to the United Nations Framework Convention on Climate Change (UNFCCC) (November 1998), it was apparent that carbon sequestration was emerging as an important mechanism to foster the implementation of the Kyoto Protocol. A major paper on the opportunities for cooperation on wetlands and climate change issues was presented at COP5 of the UNFCCC in November 1999. Carbon conservation inherently must include the wise use of carbon resources found in peatlands and the potential implementation of a global trading mechanism for carbon credits. Thus, peatlands have been identified as a major component of the world's carbon sink and a valuable economic resource.

Similarly, peatlands play an important special role in conserving global biodiversity. These ecosystems are the refugia of some of the most rare and unusual flora and fauna species we know. Peatlands also act as natural stores and filters affecting water quantity and quality important for human communities throughout the World. Thus, peatlands are a significant and as yet poorly addressed issue in the Convention on Biological Diversity.

Peatland issues involve economic, socio-cultural and environmental concerns implicit in the implementation of the Ramsar Convention, the Framework Convention on Climate Change, the Convention on Biological Diversity, and other international instruments and agreements.

It is recognized that the Ecosystem Approach, underpinned by the Malawi Principles and adopted as a framework for implementation of the Convention on Biological Diversity, also provides a valuable approach for implementation of this *Global Action Plan for Peatlands*. This would be consistent with Decision IV/15 at COP4 of the Convention on Biological Diversity and Resolution VII.15 of COP7 of the Ramsar Convention referring to the use of an ecosystem approach.

The Development of A Global Action Plan

The development of a *Global Action Plan for Peatlands* has followed a progressive path over several years. This reflects considerations and contributions by a host of expert scientific and technical bodies and international fora. Action on peatlands has now become part of the mainstream supported by national governments, exemplified by

the Recommendations of COP6 and COP7 of the Ramsar Convention. The potential for linkages to COP actions in other Conventions is now being facilitated by Memoranda of Understanding and Joint Work Plans of some of the key international environment treaties.

The linkage of biodiversity, climate change and carbon sinks, wise use and management of peatlands formed the elements of one of the Workshops of the 13th Global Biodiversity Forum held on 7-9 May 1999 in San José, Costa Rica. This Workshop was organized under the sponsorship of IUCN and numerous partner organizations. The Workshop was the first opportunity to review a draft of the *Global Action Plan for Peatlands*. This draft Action Plan was subsequently received by COP7 of the Ramsar Convention in May 1999 in Recommendation VII.1. This recommendation included direction to the partnership of organizations responsible for its development to complete the text for consideration at COP8 in 2002.

- The elements of the *Global Action Plan for Peatlands (GAPP)* evolved as a result of extensive technical and scientific consultation over the 1994 to 1999 period. Recommendations for peatland wise use initiatives are based upon those developed in previous international fora including:
 - 1994, *The Trondheim Declaration* from the Sixth IMCG Symposium, Trondheim, Norway.
 - 1995, *The Edinburgh Declaration* developed at the International Peatlands Convention, Edinburgh, Scotland.
 - 1995, *The Palangka Raya Declaration* adopted by the International Conference on Biodiversity and Sustainability of Tropical Peatlands, Palangka Raya, Indonesia.
 - 1996, *A Global Action Plan on Mire and Peatland Conservation* proposed during the International Workshop on Peatlands and Mire Conservation, Brisbane, Australia.
 - 1996, *Recommendation VI.9* of COP6 and *Strategic Plan 1997-2002*, Ramsar Convention.
 - 1997, *Recommendations of the Joint IPS/IMCG Working Meeting*, Surwold, Germany.
 - 1998, The IUCN Commission on Ecosystem Management report entitled *Guidelines for Integrated Planning and Management of Tropical Lowland Peatlands with Special Reference to Southeast Asia*.
 - 1998 June, *Peatlands Under Pressure – Arctic to Tropical Peatlands*, International Workshop, IUCN-CEM and Society of Wetland Scientists, Anchorage, Alaska, USA.
 - 1999 May, *IUCN Global Biodiversity Forum 13, Peatlands Wise Use Workshop*, San José, Costa Rica.
 - 1999 May, *Recommendation VII.1* of COP7, Ramsar Convention.
 - 1999 July, *Statement on Tropical Peatlands*, Statement of the International Conference on Tropical Peat Swamps, Penang, Malaysia.

Most recently, this draft Action Plan has been reviewed by two technical meetings, first by the STRP of the Ramsar Convention and, second, the partners that have developed the Plan. It is now presented here in a form that the partners request be directed to Contracting Parties of the Ramsar Convention for further consultation.

- 1999 September, Annual Meeting, Scientific and Technical Review Panel, Ramsar Convention, Gland, Switzerland.
- 1999 November, Working Meeting convened by IUCN-CEM on a Global Action Plan for Peatlands, Freising, Germany.

This document represents a scientific and technical basis for global action on peatlands wise use and management.

It is recognized that much more consultation of the Action Plan is required, noting in particular the considerable deficiency to date for adequate inclusion of input and advice from developing nation experts and governments particularly with regard to different social, cultural and economic perspectives .

GLOBAL ACTION PLAN FOR PEATLANDS

Vision Statement

The partners to this Action Plan envisage recognition of the importance of peatlands to the maintenance of global biodiversity, the conservation of carbon vital to the world's climate system, and the wise use and management of natural resources for the benefit of people and the natural environment.

Action Plan Objectives

The objectives of this Global Action Plan for Peatlands are:

- a) to provide a framework for national, regional and international initiatives promoting cooperation on the development of peatland wise use and management strategies;
- b) to foster national, regional and international partnerships of government, private sector and non-government agencies to fund and implement actions in support of such strategies; and
- c) to facilitate adoption and support for implementation of this Action Plan through the Ramsar Convention, the Convention on Biodiversity, the Kyoto Protocol of the Framework Convention on Climate Change and other appropriate national, regional or international mechanisms.

Action Plan Partners

The partners in this Global Peatland Action Plan will involve many networks and organizations including the:

- IUCN Commission on Ecosystem Management (IUCN/CEM);

- Ramsar Convention and its Contracting Parties;
- International Mire Conservation Group (IMCG);
- International Peat Society (IPS);
- Wetlands International (WI);
- Society of Wetland Scientists (SWS);
- Global Environment Network (GEN);
- Institute for Wetland Policy and Research (IWPR);
- and
- other interests and partners not yet identified.

Opportunities

The Global Action Plan for Peatlands identifies opportunities to further its objectives with supporting actions in each case, as listed below. These actions are derived from those developed and endorsed in international fora on this issue during the 1994 to 1999 period.

The Action Plan has eight opportunities as follows:

- Knowledge of Global Peatland Resources;
- Peatland Education and Awareness;
- Policy, Management Guidelines, and Legislative Instruments;
- Wise Use of Peatlands;
- Research Networks, and Centers of Excellence;
- Institutional Capacity;
- International Cooperation; and
- Implementation Strategy.

Opportunity No. 1: Knowledge of Global Peatland Resources

Development of globally standardized peatland terminology and classification systems consistent through several languages, as appropriate, is required.

Actions:

- 1.1 Through the cooperation of IMCG, IPS, IUCN-CEM and interested partners, establish a Joint Working Group on global peatland ecosystems and peat terminology and publish an updated *Glossary of Peatland Terms* in several languages, providing definition of terms that are relevant to peatland wise use and management.
- 1.2 With the assistance of partner organizations, such as IPS, IUCN, Wetlands International and IMCG, and Ramsar Contracting Parties:
 - a) establish regional and national reports on peatland classification and terminology possibly as special issues of existing publications including the *International Peat Journal*;
 - b) establish an electronic bibliography of literature relevant to peatland wise use, management and conservation;
 - c) organize regional and international workshops or symposia on this theme at appropriate venues and dates; and
 - d) produce a series of informative publications for international distribution on the status of regional use and management of peatlands throughout the world.

- 1.3 Prepare a report on global peatland types and regions relating as far as possible to the Ramsar Convention *Wetland Classification System*.

Establishment of a global data base on the ecological characteristics and distribution of peatlands and mires, including carbon storage, is essential. The Ramsar Sites Data Base maintained by Wetlands International has descriptive information on over 1000 Ramsar Sites globally. This is projected to increase to 2000 sites in the next decade. Many of these sites are peatlands. An analysis of the nature of peatlands identified in this data base and possible future directions are needed.

Actions:

- 1.4 All nations should identify biogeographic regions relevant to peatland information management. This is essential to allow peatland data integration and synthesis in a standardized framework.
- 1.5 The global data base should build upon the extensive information on peatland distribution available in several regional and global surveys. It should be developed in cooperation with Wetlands International and the Ramsar Convention and other technical bodies such as the World Conservation Monitoring Centre.
- 1.6 Ramsar Contracting Parties, the Ramsar Scientific and Technical Review Panel (STRP), the Ramsar Bureau, IPS, IUCN-CEM, Wetlands International, IMCG and other interested partners should review the extent and quality of peatland surveys around the world and identify those areas in need of further inventory.
- 1.7 A global carbon data base including information on carbon distributed in peatlands, within both forested and non-forested ecosystems, should be established by the Parties to the Kyoto Protocol as an essential tool in understanding and negotiating implementation of this Protocol under the UNFCCC.
- 1.8 Agencies with peatland expertise should become directly involved in national and international initiatives involving establishment of carbon sequestration and carbon credit projects under mechanisms of the Kyoto Protocol of the UNFCCC.

Establishment of a *Global Status and Trends Survey* on peatland condition such as functioning, resource use, changes in ecological character, restoration and rehabilitation is needed. This is fundamental to reporting on and promoting awareness of peatland functions and values.

Such an initiative can be a key contribution to the proposed Millennium Assessment of Global Ecosystems coordinated by the World Resources Institute and the development of the IUCN Global Ecosystem Information System.

Actions:

- 1.8 The status and trends in peatland land use, inventory, change in ecological character, restoration and rehabilitation should be reporting elements in the triennial National Reports produced by Contracting Parties to the Ramsar Convention.
- 1.9 Informative summary reports should be produced in cooperation with peatland partner agencies for use in meetings of the Ramsar Convention, Convention on Biological Diversity, UNFCCC and other relevant international fora to highlight the status of global peatland resources.
- 1.10 A review of existing peatland ecosystem understanding should be carried out, with the objective of identifying priority areas for further research designed to assist in the maintenance of the ecological character of peatlands, including Ramsar sites.

Opportunity No. 2: Peatland Education and Awareness

Integration of peatland information into education and public awareness programs is an essential component of the wise use and management of peatlands.

Actions:

- 2.1 Appropriate national or sub-national education agencies should incorporate peatland curricula in educational programs particularly in areas where peatlands form a significant component of the landscape. Such curricula should feature the ecological, economic and cultural functions and values of peatlands as well as their importance to people including traditional knowledge based on input by local communities, women and indigenous peoples.
- 2.2 A series of specific, peatland-related education and interpretation initiatives should be established, both internationally and nationally. These should be carried out by each Ramsar Contracting Party, with the support of expert non-government organizations including options and information available for:
 - a) links to existing education programs and curricula;
 - b) educational and exhibition proposals that can bring greater understanding and appreciation of the benefits and value of local or regional peatland systems to local communities; and
 - c) the importance of peatland resources to national and global economic systems.

Opportunity No. 3: Policy, Management Guidelines and Legislative Instruments

Development of national peatland policies, consistent with the character of natural resources wise use and management goals, is needed, defining clear objectives and strategies. Reviews at the national and international level of laws and institutions that could enhance wise use and management of peatlands are also needed.

Peatland management guidelines and models for implementation of national or regional action plans are needed.

Expansion of the global network of Ramsar sites featuring peatland functions and values is needed.

Actions:

- 3.1 Review the present framework of national policies, laws and regulations to ensure that effective peatland wise use and management are practiced; and enhance such measures where there is national consensus that peatlands are at significant risk due to resource development or other natural pressures.
- 3.2 Where there is national consensus that an incomplete network of protected peatland sites is present, expand peatland reserves, parks or other types of protected peatlands.
- 3.3 Secure the conservation of nationally, regionally and globally important and representative peatland types particularly through the expansion of Ramsar sites featuring peatlands.
- 3.4 Elaborate more explicit criteria for recognition of the special characteristics of peatlands leading to their designation as Wetlands of International Importance and improve the quality of information on peatlands in the Ramsar data base.
- 3.5 Develop global and national peatland wise use and management plans and guidelines including the following overall objectives:
 - a) utilize the research and expertise of countries where practices such as peatland forestry, peat energy use, and horticultural peat harvesting have been in place for extended periods. These can be used as experience and examples for other nations considering peatland resource use programs at a national level.
 - b) promote the wise use and management of peatland functions and values through the implementation of national land use planning; and
 - c) facilitate national commitments for peatland wise use and management made through the implementation of international conventions and treaties.
- 3.6 Encourage submission of proposals for official development assistance projects to create and implement national and regional plans and guidelines for peatland wise use and management. This should apply to all developing nations and countries with economies in transition in which peatlands form a significant component of the

landscape, including boreal bogs, coastal mangrove systems and tropical peat swamp forests. The 1998 IUCN *Guidelines for Integrated Planning and Management of Tropical Lowland Peatlands* is an example.

Opportunity No. 4: Wise Use of Peatlands

Synthesis of current understanding of wise use concepts for peatlands is needed, considering definitions and principles established under the Ramsar Convention and other international instruments.

Actions:

- 4.1 The Wise Use Working Group established by the IMCG, IPS and other partners that has focused on synthesis of peatland wise use concepts, terminology and philosophy should prepare a *Discussion Paper* and *Wise Use Guidelines for Global Mires and Peatlands* to be published and distributed globally in cooperation with the Ramsar Convention and other partners.
- 4.2 Status reports on this initiative should be developed for distribution to international agencies and Contracting Parties to the Ramsar Convention, the Convention on Biological Diversity, and other appropriate treaties.
- 4.3 Measures to encourage the application of wise use and management of peatlands should be supported by better information on the costs and benefits of management of peatlands and effects of various economic and social incentive measures.

Opportunity No. 5: Research Networks and Centers of Excellence

Creation of networks for peatland research, program cooperation and Centers of Excellence are needed to foster joint project ventures, integration of efforts among agencies, and a common sense of purpose. Establishment of priorities for the wise use and restoration of peatlands through cooperative scientific and management studies is needed. This will assist in advance planning on a global basis.

Actions:

- 5.1 Strengthen international cooperation and information exchange between organizations and institutions involved in peatland wise use and management issues.
- 5.2 Improve understanding of the biodiversity and ecological character of the world's peatlands through enhancement of the research capacity of university, industry and inter-governmental networks. This should include establishment of Centers of Excellence on Peatlands and significant expansion of training and research in peatland ecology, science and technology.

- 5.3 Through the cooperation of partner organizations such as IUCN-CEM, IPS, IMCG, SWS, and other organizations and Ramsar Contracting Parties, establish a more effective global peatland communication network, by:
 - a) establishment of networks on peatlands using new technologies; and
 - b) identification of enhanced networks of peatland specialists who can provide guidance and advice about best practices to client agencies and governments on a project basis.

Opportunity No. 6: Institutional Capacity

Peatland wise use and management is recognized as an issue for both developed and developing nations and countries with economies in transition. It is critical that local and community-based capacity for implementation of peatland initiatives be developed.

Actions:

- 6.1 Foster development of local and community-based peatland wise use and management initiatives and actions through development assistance and land use planning programs particularly those affecting and to be implemented by women, indigenous peoples, and local organizations.
- 6.2 Support research and transfer of technologies for peatland management and restoration, avoiding duplication of effort and maximization of available resources, particularly for local community use in developing nations and in countries with economies in transition.
- 6.3 Foster the development of national and local organizations with expertise in peatland management.

Opportunity No. 7: International Cooperation

All stakeholders with interests in global peatland use should work more closely together to foster cooperative ventures and maximize use and availability of financial and program resources to undertake these tasks.

Support for international cooperation on peatland wise use and management should be facilitated through the Ramsar Convention, the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and other appropriate international instruments.

Actions:

- 7.1 International conventions, agreements and regulations should be used effectively to support wise use and management of global peatland resources consistent with the United Nations Agenda 21 Principles.
- 7.2 Peatland wise use and management issues should be included in the discussions and

resolutions prepared for the COPs and subsidiary body meetings of the Ramsar Convention and other treaties such as the Conventions on Biological Diversity, Climate Change, and other international instruments.

- 7.3 The Ramsar Bureau and the IUCN Commission on Ecosystem Management should take an active coordination role in global peatland issues in cooperation with peatland stakeholders, and expert organizations and networks such as the IPS, IMCG, GEN, SWS, Wetlands International and others.
- 7.4 Peatland organizations should have at least one joint meeting of invited participants and board members each year to focus on key issues of mutual interest, promote cooperative ventures, and develop stronger information linkages with appropriate groups.
- 7.5 Develop mechanisms for the transfer of peatland management and restoration

technology and expertise to developing nations and countries with economies in transition.

Opportunity No. 8. Implementation Strategy

An effective implementation strategy is called for and is essential to delivery of the Global Action Plan for Peatlands.

Actions:

- 8.1 In cooperation with peatland organizations, institutions, and networks, identify program implementation and support funding as appropriate.
- 8.2 Utilize this Action Plan to assist in requests for official development assistance and in cooperation with regional, national and international agreements, treaties and agencies.
- 8.3 Develop a monitoring process to evaluate the Action Plan in terms of time and elements.

The GAPP, what did the Ramsar Standing Committee do with it?.

From the minutes to the 24th Meeting of the Ramsar Standing Committee, Gland, Switzerland: 29 November – 2 December 1999; complete minutes on: http://iucn.org/themes/ramsar/key_sc24_minutes.htm

45. In relation to the Draft Global Action Plan for Peatlands (GAPP) endorsed by Recommendation 7.1, Dr Jack Rieley, representing the International Peat Society, introduced himself and Dr Randy Milton (Canada), both members of the STRP's Working Group on Peatlands. He presented the latest draft of the GAPP as it has emerged from the workshop just concluded in Freising, Germany, and he described the document as similar in content but significantly improved in presentation over the version that was endorsed by Recommendation 7.1 at Ramsar COP7. The intention is to reintroduce the draft plan into the Ramsar process, and he invited the SC to accept the Plan for further study by the STRP, hopefully to proceed through further improvements to endorsement by Ramsar COP8. He offered to the

STRP the assistance of the original drafters and the global network of peatlands experts and noted that the present draft will also be distributed for comment and discussion in a number of other venues, including the Millennium Wetland Event in August 2000.

46. Dr Rieley indicated that draft wise use principles for peatlands have been developed to serve as an annex to the GAPP.

There was discussion of the use of the word "draft" in relation to the GAPP, since it remains a draft as it develops further for formal consideration as a Ramsar COP8 document, but can be considered in the meantime as a carefully thought out description of specific actions which can be brought to the attention of donor agencies as if it were a finished plan.

Decision SC24-8: The Standing Committee accepted the present version [circulated at the meeting] of the Global Action Plan for Peatlands for further study by STRP and SC with a view to bringing it for formal consideration by Ramsar COP8.

Wise Use

The first draft of the Wise Use Guidelines for Global Peatlands, the joint project of the two worldwide peatland organisations IMCG and IPS, was discussed during the IPS-IMCG Freising meeting in Germany in November 1999. The discussion participants were satisfied with the current progress, but also recognized that still a lot has to be done, both with respect to inventory of (possibly conflicting) functions and values and for the formulation of practical guidelines. A list of experts was drawn up to

be asked for concrete input in the Guidelines (so don't be startled when you are contacted!). Aim is to present a complete IPS-IMCG discussion version on the Quebec Wetland Millennium Event and to involve other organisations (IUCN, SWS, etc.) closer in the discussions from that point on.

IMCG-ers willing to participate in guideline development and discussion, please contact the IMCG Guidelines coordinator Hans Joosten.

The Lagow meeting in Poland (March 2000) will provide opportunities to discuss the available drafts. The IPS Guidelines coordinator Donal Clarke (Bord na Mona, Ireland) will join us there for our

discussions. Another meeting between IPS and IMCG on the Guidelines is scheduled for 17 May 2000 in Stockholm (Sweden).

The Freising Statement

During the joint IPS-IMCG Working Meeting held in Freising, Germany on November 27-28, 1999, the climate change issue, including carbon sinks and sources in peatlands, was recognized as a rapidly emerging theme of significant importance to all organizations involved in peatlands. The discussion centered around research priorities, and actions that could be pursued by IPS and IMCG. It was noted there is an urgent deadline for new submissions to the Second Global Climate Change Assessment in particular for submission to the Intergovernmental Panel on Climate Change (IPCC). A short document was prepared and adopted, called the "Freising Statement", outlining a Joint Statement of IMCG and IPS. It was proposed also that it be distributed immediately to the IPCC and to national delegations to the UN Framework Convention on Climate Change (UNFCCC).

THE FREISING STATEMENT

Position paper of IPS/IMCG

IPS is an international and composite organisation containing representatives of different interests: applied and academic scientists, engineers, and businesspeople. The mission of IPS is to promote international co-operation on all matters concerning peatlands. IPS carries out its main work through seven Commissions dealing with the use of peatlands for conservation, industry, agriculture, medicine, forestry; as well as after-use and characteristics.

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.

The role of peatlands in man-induced climate change
Addressed to the IPCC

I. Introduction

1. Peatlands contain about 35% of the global terrestrial surface carbon store;
2. Development of pristine peatlands for agriculture and peat extraction stops carbon sequestration and leads to a decrease of the peat carbon pool on these sites; drainage of peatlands for forestry negatively affects peat carbon sequestration, but

increased biomass may temporarily (1-2 centuries) compensate for sequestration losses; the rewetting of disturbed peatlands can contribute to carbon sequestration;

3. Large scale fires in peatlands cause substantial carbon release;
4. The role of peatlands in the global carbon balance and climate change is presently not taken into account by the UN FCCC, Kyoto Protocol;

II. Aims

5. The UNF Convention on Climate Change should include actions designed to:
 - Promote the maintenance of existing carbon stores in peatlands;
 - Prevent the uncontrolled release of carbon from peatlands;
 - Maintain the carbon sequestering role of pristine peatlands;
 - Promote the restoration of disturbed peatlands for carbon sequestration;
 - Reduce, by wise use, the emissions of greenhouse gases from peatlands currently being used;
 - Promote further studies on carbon balance in peatlands and its role in global climate change;

III. Action plan

6. Create a data base on size and utilization of peatlands in order to obtain information about the carbon pool and its changes;
7. Minimise the drainage of pristine peatlands;
8. Reduce the emissions from existing agricultural, forestry, and peat extraction activities by wise use;
9. Mitigate losses through restoration and other appropriate measures;
10. Avoid the introduction of perverse incentives for climate protection matters, (such as peatland drainage for afforestation for the sole purpose of acquiring carbon credits);

The contracting parties to the UNF Convention on Climate Change (Kyoto Protocol) are urged to include the above mentioned actions in the Convention.

signed:

Jens-Dieter Becker-Platen, President of IPS
Richard Lindsay, Chair, IMCG

Programme for Quebec 2000 IMCG field symposium, conference, and congress

by Richard Lindsay

The Quebec meetings is going to be a rather different affair from previous events. Forming part of the much larger Millennial Wetland Event in Quebec, the IMCG programme has had to change its character somewhat to fit with the constraints of the larger programme. The level of funding for participants is also significantly lower than on previous occasions. Unfortunately it is therefore very probable that only a limited number of participants will be able to attend the programme of events.

More and more activities world-wide point to the need for IMCG to establish a clearly-defined work programme and identify a set of members committed to taking these forward. It also suggests that the IMCG needs to become a more formal organisation in order to be able to take on contract work.

Much of these issues will be spread across two events during the coming year: the Classification Workshop to be held in Lagow, Poland, between 24th and 28th March and the Quebec 2000 event. We intend that the IMCG Congress (to discuss internal organisational IMCG business) in Quebec will be held on Sunday 6th August and will decide on those issues discussed already in Poland.

More details about the Congress aspects of the Poland meeting will be provided in due course. Let us for the moment concentrate on the events in Quebec. Firstly, for much domestic information (hotels etc.) there is an extremely informative web-site at: <http://www.cqvb.qc.ca/wetland2000/>

Programme

The programme consists of five key elements:

1. Pre-Conference Field Trip (27 July - 5 August)
2. IMCG Congress (6 August)
3. IMCG Conference (probably 7 - 8 August)
4. Mid-Congress Field Trip (9 August)
5. Post-Congress Tour (12 - 16 August)

1. Pre-Conference Field Trip (27 July - 5 August)

Originally planned as the IMCG Field Symposium, it has unfortunately become clear that relatively few people can afford what will undoubtedly be a spectacular field trip. The cost (Vancouver - Queen Charlotte Islands - Vancouver) is CAN\$2400. For more detailed information, please refer to: <http://www.for.gov.bc.ca/prupert/Wetlands/icmgwetlands20/>

The programme looks as follows: *Thursday 27 July*, Meet at Vancouver International Airport; Charter to Prince Rupert (about 2-2.5 hrs flight); *Friday 28 July*, Wetlands around Prince Rupert: Minerva Lake (sloping peatland); Green River (raised bog over marine sands); Khyex River (estuary, culturally modified tree, rock art); +/- 'locus classicus' at Rainbow Lake; *Saturday 29 July*, HYP³ research sites: Diana Lake, Smith Island; *Sunday 30 July*, Technical session at Cannery; *Monday 31 July*,

Travel by ferry to Queen Charlotte City. *Tuesday 1 August*, Peatlands (mostly flat and domed bogs) of eastern Graham Island: Boulton Lake, Tow Hill bog and beaches, Naikoon Park, +/- Kumdis Slough; *Wednesday 2 August*, Charter boat through Skidegate Inlet to west coast QCI; landfall on Chaatl Island, with sloping peatlands; *Thursday 3 August*, Temperate rainforests on Graham Island: Yakoun Lake (big old trees); Rennell Sound (Gregory Creek-alluvial forest, Bonanza Beach-beach forest, hypermaritime zonal forest, helicopter logging trial); *Friday 4 August*, Higher elevations: 2 groups; the reasonably fit hike up Slatechuck Mountain (subalpine forest, meadows, and rocky slopes - some QCI endemics), the less fit by vehicle to high pass on Phantom Main (subalpine forest and peatlands); *Saturday 5 August*, Depart Sandspit, QCI by Charter to Vancouver International Airport;

2. IMCG Congress (6th August)

This will be a one-day event during which the future programme and constitution of the IMCG will be decided upon. IMCG officials - Chairman, IMCG Board Members - will also be elected. Relevant papers will be distributed among IMCG Members in time for the Poland Workshop, and then again prior to the Quebec Congress.

3. IMCG Conference (7th - 8th August ?)

The date for the session of technical papers is still being discussed with the Quebec 2000 organisers, but it seems likely that the programme will begin on the afternoon of 7th August and run on over the morning and early afternoon of the 8th August. The first group of papers will consider 'General/global issues', while the second group will consist of a series of 'Regional accounts'. During the evening, there will be a Poster Session and Reception. There will be a distinctive IMCG Section within the poster display area. The provisional programme of talks is as follows:

Monday 7th August

- Afternoon session - General Studies (13:30 - 17:30)
Each paper will be 40 minutes, including 5 minutes for discussion
- Overview of Telma 2000 - IMCG's Action Programme for the GAPP (Richard Lindsay)
 - Order from chaos - IMCG classification initiatives. (Jan Sliva / Leslaw Wolejko)
 - Towards a Global Mire Species List (Philippe Julve)
 - The Global Mire Resource - Regional Accounts : 1. Europe (Lebrecht Jeschke & Hans Joosten)
 - Development of Mire Education Programmes (Catherine O'Connell)
 - Wise Use Guidelines for Peatlands - partnership and progress (Hans Joosten & Donal Clarke)

Tuesday 8th August, morning session

Regional Accounts (08:30 - 12:00); each paper will be 30 minutes, including 5 minutes for discussion.

- Regionality of Mire Systems (Asbjørn Moen)
- France - the lesson of domestic partnership (Jean-Marc Hervio, Philippe Julve & Virginie Vergne)
- Central & Eastern Europe Mire Programme - an example of domestic and international partnership (Henk Zingstra)
- The Southern Extremities - mires in South Africa (Piet Louis Grundling)
- Russia (Tatiana Minayeva)
- South East Asia (Faizal Parish)

Tuesday 8th August, afternoon session

Regional Accounts (13:30 - 15:00); each paper will be 20 minutes, including 5 minutes for discussion.

- North and Central America (Ron Hofstetter/Ton Damman/Barry Warner?)
- Mire conservation in Central and Northern Eurasia (Michael Succow)
- Australasia & Oceania (Max Finlayson/Kath Dickinson?)
- Mire Conservation in China (Yongxing Yang?)

Posters are expected on the following issues:

- Terminology - IMCG's quest for a common language (Ron Hofstetter & Michael Steiner)
- Pattern - taking the fingerprint of a mire (Carlos Thompson, Richard Lindsay, Filippo Campagna Popolo)
- The Zoological perspective - mires as animal havens (Stefan Hotes)
- Water and Peat - classifying mires from first principles (John Couwenberg & Hans Joosten)
- Mire vegetation - universal principles of description (Philippe Julve)
- "Le monde des tourbières et des marais" - the book of mire conservation in French-speaking Europe (Virginie Vergne, Olivier Manneville, Olivier Villepoux)

- Mires and mire conservation in Colchis (Transcaucasia, Georgia) (Andreas Kaffke)
- Mires and mire conservation in Kirgistan (Thomas Heinicke)
- European Mires: distribution and conservational status (IMCG European Mires consortium)
- Identification of mires of international importance (Thomas Heinicke, Hans Joosten, John Couwenberg, Colin Bonfield)
- Archive value of peatlands (Hans Joosten, Virginie Vergne, Nicki Whitehouse?)
- Peatland language: a database of peatland related terms and concepts (Colin Bonfield)

N.B. IMCG-related poster presentations can still be submitted. Contact Richard Lindsay or Jan Sliva as soon as possible. (r.lindsay@uel.ac.uk; sliva@pollux.edv.agrar.tu-muenchen.de)

4. Mid-Congress Field Trip (9th August)

The Quebec 2000 organisers are offering a range of mid-Congress tours on Wednesday 9th August. It is proposed that IMCG members might like to consider signing up to tour F-8 - "Boreal Peatlands", although it is limited to 20 places. An alternative might be F-29 - "Conservation of undisturbed peatlands biodiversity". In this way, we can increase the opportunity for IMCG members to meet and discuss in the field, which is our characteristic way of doing business.

5. Post-Congress Tour (12th August - 16th August)

Several post-congress tours are offered, but there are problems with limited capacity for some of the most interesting IMCG-type tours. It is therefore suggested that IMCG members might like to consider signing up for Tour P-7 - "Peatland Restoration in New Brunswick & Quebec". By doing so, this will again give IMCG members the opportunity to spend time together in the field.

Regional News

Peat and the Finnish Greenhouse Issue

On 18 November 1999, the Finnish Ministry of Trade and Industry has commissioned three investigators - Patrick Crill (USA), Ken Hargraves (UK), and Atte Korhola (Finland) - to assess the role of peat in Finland's greenhouse gas balances. The assessment aims to draw conclusions that are globally valid, not just in Finnish circumstances and covers the following topics:

1. the balance of greenhouse gases related to peatlands (natural, drained, cultivated, cut-over)
2. different alternatives for secondary use of peatlands and their effect on greenhouse gas balances

3. determination of greenhouse gas emissions and sinks
4. other environmental effects
5. needs for further research.

Background of this decision are the important role of peat in Finnish energy generation and the discussions on peat as a fossil fuel or a biofuel.

In accordance with the international Climate Change Convention, peat and the greenhouse gas emissions due to peat burning are currently placed in the same category as fossil fuels. Especially the Finnish peat industry propagates, that peat should be classified as a biofuel or as a (slowly) renewable energy source.

Peat accounts for more than 6 % of the energy consumed in Finland. The Finnish Energy Strategy

from 1997 states: "In its natural areas of use, peat is nowadays a competitive fuel, especially for the combined generation of heat and power. Since peat production and use have required certain investments in equipment, full use should be made of these investments in the future too." The Strategy furthermore says: "As to peat, the Council of State's view is that each individual Member State (of the EU, eds.) should be allowed to determine the tax on peat independently."

The European Mires Book

The IMCG European Mires Book, the overview of peatlands in Europe with contributions from every country, is proceeding well. Most European countries are covered now by (groups of) national peatland experts preparing their chapter. Some countries are still missing, but we keep on trying to find the best possible authors. Detailed guidelines on the format of the chapters have been provided and an exemplary chapter on the peatlands of "Utopia" has been prepared and distributed to reach optimal uniformity in format and content of the country chapters.

An inventory of the peatland national classification systems showed, that it will be very difficult or even impossible to reach a detailed and complete unified peatland typology. Europe is apparently a continent too diverse in mire types, research history, and peatland use to reach such a goal easily. Therefore every country will present its national typology (which is also the base of national inventories) and – in a joint exercise – authors and editors will infer conclusions on the international level.

The first draft country chapters have been submitted already and we are very satisfied with them.

In the coming months, the editors will:

- continue to fill in the white spots on the map, i.e. looking for authors of countries not satisfactorily covered yet;
- chase the authors to submit their first drafts;
- support the authors in improving their draft chapters;
- give technical support in preparing maps and figures.

As many authors are expected to be present at the IMCG Lagow meeting (Poland) at the end of March 2000 we will dedicate there some time for discussions for fine tuning the book.

For further information and comments: Hans Joosten, Botanisches Institut, Grimmer Strasse 88, D-17487 Greifswald, Germany. Email: joosten@mail.uni-greifswald.de

Central European Mires Project

This project of Wetlands International, in which IMCG cooperates, is aiming at the protection and management of biodiversity values related to peatlands in Belarus, Czech Republic, Estonia,

Latvia, Lithuania, Poland, Slovak Republic, and Ukraine (see last newsletter). A first workshop with participants was organised in Wageningen (NL) on 25-26 October 1999.

Henk Zingstra (WI) explained the (complicated funding) structure and implementation process of the project. The requirements, possibilities, and usefulness of several GIS options, and the links with the Darwin Initiative, the European Mires Book, and the GAPP were discussed. Presentations and discussions covered terms and concepts, international conventions, identifying peatlands of international importance, and monitoring. All participating national experts presented a preliminary overview on the current peatland area, value, protection status, problems and threats, scientific research, organisational aspects, and needs and wishes in their countries. Wetlands International has produced a 26 p. report on the meeting.

The next workshop will take place 20 – 22 February 2000 in Denmark. Further information:

Henk Zingstra, Wetlands International, PO Box 7002, NL- 6700 CA Wageningen, The Netherlands; email: ZINGSTRA@wetlands.agro.nl or

Mette Risager, Department of Plant Ecology, Øster Farimagsgade 2D, DK-1353 Copenhagen, Denmark; email: METTER@bot.ku.dk

The Darwin Initiative Peatland Biodiversity Programme

by Olivia Bragg

In accordance with the Biodiversity Convention, the UK government undertook to contribute to the cost of biodiversity conservation in poorer parts of the world, and funds were set aside for this purpose under a grants scheme known as the Darwin Initiative. In 1996 the Peatland Biodiversity Consortium was born - bringing together peatland experts from Scottish Natural Heritage (SNH), the Scottish Wildlife Trust (SWT), and the Universities of Dundee and Stirling - with the purpose of formulating a Darwin Initiative project proposal targeted on the peatlands of eastern Europe. The Macaulay Land Use Research Institute and Aberdeen University joined the Consortium a little later, and Darwin Initiative funding was awarded in 1998.

The Peatland Biodiversity Programme (PBP) aims to help the countries of central and eastern Europe to conserve peatlands. Its initial funded period is three years, from 1998 to 2001. During this time, around 50 delegates from eastern Europe will be invited to attend a three-week training course in Scotland, and then to organise and run follow-up workshops to address the most urgent peatland conservation issues in their own countries. The stated aims of PBP are:

1. To demonstrate how peatland biodiversity is conserved in Scotland by combining scientific, administrative and practical skills spread across public, private and voluntary sector organisations.

2. To promote peatland biodiversity conservation in eastern Europe by encouraging development of local expertise.

3. To establish international partnerships.

The programme is designed to “cascade” impetus for peatland conservation from Scotland into all the countries of eastern Europe which have significant peatland resources. Therefore, the most important requirements for delegates invited to Scotland are that they should be involved in peatland conservation and be able to communicate and collaborate with other mire conservation workers in Scotland and in their own countries. They may be policy-makers, scientists, field workers, managers, lecturers/teachers, or voluntary conservation workers. They do, however, need some knowledge of the English language. For those selected to participate, all expenses necessary to complete the course in Scotland are covered and means to provide international travel for any delegates, unable to fund this in any other way, could thus far also be found.

The course aims to cover the whole mechanism of mire conservation, from ecology to politics. Five themes are included:

1. Ecosystem function (basically, mire science)
2. Conservation management of peatlands (practical conservation)
3. Resource survey and inventory (including low- and high-tech options)
4. Role of the state in protection of peatland biodiversity (policy, legislation)
5. The role of voluntary organisations.

It is delivered by around 40 contributors drawn mostly from the Consortium organisations, with significant additions from the Royal Society for the Protection of Birds (RSPB), the Irish Peatland Conservation Council (IPCC), and the Universities of St. Andrews and Vienna. There are classroom lectures and laboratory demonstrations, and at least half of the time is spent in the field. Towards the end of the three weeks, time is devoted to developing programmes for the follow-up workshops; and to identify and agree funds to cover the cost of resources necessary for their delivery.

So far, two Scottish courses have taken place. The first, in October 1998, was based in Stirling and attended by eleven delegates; then in August 1999 20 delegates came to Dundee. By April 2000, 13 follow-up workshops in 10 countries should have been completed. Only 3 of the 13 targeted countries have not yet responded; whilst five countries have participated in both courses and some are now organising their second Darwin workshops.

Whilst we do not offer input to the follow-up workshops as part of the Programme, we have been able to respond to delegates' requests for assistance in areas where they do not have their own expertise. Last year, Michael Steiner helped in Slovakia; Clifton Bain (RSPB) and Stuart Brooks (SWT) attended the Polish workshop with support from British Airways; and the Royal Society covered expenses for me to visit the Czech Republic. Many ideas for Scottish

collaboration in conservation and research projects have been discussed between individuals. But far more valuable than distant connections with Scotland are the contacts established between neighbouring countries in eastern Europe. The social atmosphere generated by the delegates themselves, arising from a common enthusiasm for mires which transcends any national prejudices we might have anticipated, leaves one confident that Darwin alumni will be supporting and collaborating with one another long after the end of the Programme.

The present phase of PBP has one more year to run with Darwin Initiative funding. There will be one more Scottish course and one more set of follow-up workshops in 2000/2001 (Feb. Estonia, Mar. Belarus, Czech Republic, Poland, Slovakia). The training materials developed are to be collated into publishable form. There are also plans to hold a final conference for all delegates, to enable us to assess achievements and to look forward together.

Furthermore, part of the Darwin remit is to explore how the infrastructure built up over these three years may continue to find useful applications. One idea is that the course might be adapted to the needs of a different geographical area; and another that we should offer practical conservation training in the current target countries.

Any comments and suggestions would be most welcome. Also as to suggestions for contacting anyone working in mire conservation in the three remaining target countries, Bulgaria, Romania, and Slovenia.

Organisations are asked to nominate their most appropriate members for the Darwin Initiative Peatland Biodiversity Programme 2000/2001. They should complete and submit one copy of the Nomination Form for each candidate. Everyone involved in management and conservation of east European peatlands, and especially those who can pass on peatland expertise to others at home; including policy-makers, scientists, field workers, managers, lecturers/teachers and voluntary conservation workers may be a suitable candidate. The closing date for receipt of nominations is 31 March 2000

For more information, contact:

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Southeast Asia Peatland Action Plan

The total tropical peatland area in Southeast Asia is estimated to be about 35-40 million ha, which is 60% of the world's tropical peatlands and roughly one tenth of the entire extent of global peatland resource. More than 85% of the peatland area of Southeast

Asia occurs in Indonesia. Other major peatland areas are found in Malaysia, Thailand, Vietnam, Brunei and the Philippines.

Due to development and rising population pressure, severe degradation to peatland in Southeast Asia is likely to continue in coming years unless prompt action is taken to safeguard these resources. Peat swamp forests converted to agricultural lands already total more than 8 million ha. Urgent collaborative measures or actions are becoming even more critical in the light of the forest fire episodes in Southeast Asia region. Forest fires in 1997/98 burnt or partially degraded more than 1.45 million ha of peatlands, about 4% of the total peatland areas in the region. Peatland fires were identified as the major contributors (about 60% of particulates) to the smoke and haze which envelops a major part of the region.

Urgency for action has been called for at several international environmental fora. On 18th May 1999, the 116 contracting Parties to the Ramsar Convention identified the need for urgent action to protect tropical peatlands. This decision reflects concerns raised in other fora including the 13th Global Biodiversity Forum and the Global Environment Facility (GEF) Council Meeting in May 1999. The Global Environment Centre (GEC) has been working, in support of the decision made at COP7 to promote the development of a Southeast Asia Peatland Action Plan and Management Initiative to promote and enhance the conservation and sustainable use of peatland in Southeast Asia.

The initiative aims to develop a comprehensive action plan for the management of peatlands in Southeast Asia, followed by on the ground implementation through demonstration projects at key sites in the region over the next 2-3 years. The initiative will also work towards establishing a strong network for information exchange and sharing between the participants, leading to better coordination among institutions and agencies in the region in activities and work on peatlands, which possibly lead to more collaborative efforts for research, management and conservation of peatlands.

The concept for the initiative is being refined through consultations with appropriate agencies and institutions. An early draft of the proposal was presented at the 13th ASEAN Senior Official for Environment Haze Technical Task Force Meeting and the 7th ASEAN Ministerial Meeting on Haze on July 5 and 6, 1999. Comments have been incorporated to develop the proposal to focus more strongly on the management of peatlands with project benefits that would support aspects of the ASEAN Regional Haze Action Plan. The proposal was also presented at the International Conference and Workshop on Tropical Peat Swamp held in Penang, Malaysia from 27-29 July 1999. The conference supported the development and implementation of the initiative as a mechanism to advance actions towards achieving the goal (see previous IMCG-Newsletter).

At present, much of the efforts and actions towards conservation and management of peatlands in the

region have been country based and stand-alone initiatives, with little dissemination or sharing of information and experience with other countries in the region. Bringing the different actors together in a broader framework will widen the knowledge base, increase understanding of major issues within and between different groups, facilitate exchange of important and critical information on peatland management in the region, and increase coverage in action programmes through expansion of networks. The existence of this broader framework will also ensure that gaps and priority areas of actions for conservation and management of peatlands within the region be identified. Practical and meaningful objectives can then be set collectively, and acceptable to all participating stakeholders.

Currently a number of activities are underway at a country or regional level that could be linked together. These include ongoing activities by local governments and research institutions to study and manage peat swamp forests, ADB's Advisory Technical Assistance for Indonesia on Planning for Fire Prevention and Drought Management Project and proposed follow-up activities, the Global Environment Facility (GEF) funded project on Malaysia's Peat Swamp Forest which was recently approved, and the ongoing DANCED project in Malaysia on developing guidelines on forestry and peat swamp forest.

It has been proposed that the plan look into the following issues:

- conservation of biological diversity and protection of key sites
- prevention of peat swamp forests fires
- ecological restoration of peatland
- better fire control system for peatland
- role of peatland in water resources management
- sustainable forest management
- socio-economic uses of peatland
- protection of carbon stores and ecological restoration to enhance carbon sequestration.

Several countries in the region are also contracting parties to the Ramsar Convention, the Convention on Biological Diversity, and the UN Framework Convention on Climate Change. As peatlands play an important role in the global climate issue, there are numerous opportunities for synergy and cross-linking initiatives between these conventions. It is proposed that issues such as carbon sequestration and emission prevention be looked into. The initiative will also look into aspects of facilitating exchange and sharing of international experience in successful peatland management and ecological restoration and fire prevention/control with the countries in the region.

The project is proposed to support the participation and collaboration of governments, research institutions, and agencies of the Southeast Asia region, as well as local and international NGOs. Other potential participants may include local or community organizations. A steering group will be established to provide overall direction for the

development of the initiative as well as ensure full participation and good coverage of the issues, refining and recommending strategies for the development of the action plan.

The role of the GEC is to support and coordinate the implementation of the initiative, to facilitate the participation of different groups and stakeholders in the initiative, and to collate information and to ensure wide dissemination of the available information.

Development of Initiative

The development phase of the action plan is expected to take 12-18 months. However, it is believed that information sharing would readily lead to benefits such as more dialogue, exchange of opinions and ideas to manage and conserve peatlands in the region. Overall, the initiative can possibly be developed in 3 phases.

- In phase 1, initial activities include identification of institution's involvement in initiative, and establishment of a directory and list of agencies and their focal area. Other activities include identification of potential sites and existing on-going projects. An initial network will also be set up to share information/experience on on-going projects. A steering group for the initiative, to review existing cooperation and set out recommendations and priority areas for action will be set up. Resources required for initiative will be identified.
- Phase 2 activities include preparation of a status report on progress of Initiative and problem identification. In this phase the Action Plan will be developed through regional workshops and consultations. A newsletter for information dissemination of status, progress and other information will be developed.
- Phase 3 will see the implementation of Action Plan and will strongly focus on management and on the ground activities –such as demonstration projects at key peatland sites. There will also be ongoing monitoring and feedback of action plan and strategies implemented. A major review of Action Plan will be carried out and reported to Ramsar COP8 in 2002.

Current status

Several organizations and individuals have provided input to the development and may be involved in the implementation of the initiative. Compilation of information for a directory is now underway. A preliminary list of sites for the initiative has also been proposed by various agencies and institutions. An electronic information network, called the Southeast Asia Peat Network (SEA-PEAT) which consist of an electronic mailing list and website have been established to facilitate sharing of information, experience and news related to peatland and related issues in the region. Work is underway to mobilize the necessary resources for carrying out the initiative.

For more information, please contact:

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<http://genet.cjb.net>

Maloti-Drakensberg Transfrontier Project

The unique mires of the Maloti-Drakensberg Mountains are susceptible to intensive live stock grazing, as has been practised by the Basuto people since the beginning of the 20th century. The Maloti-Drakensberg Transfrontier Project aims to establish a Transfrontier Conservation Area (TFCA) to conserve and sustainably use this region on the border of South Africa and Lesotho. The proposed TFCA will include both strictly protected areas and managed rangelands. It will contain the largest and most important high altitude protected area in the south african subcontinent , supporting unique montane and subalpine ecosystems, with 30% endemic plant species, a high diversity of wetland types (including peatlands and mires), and important archeological sites. After many years of studies, workshops, and intergovernmental meetings, the World Bank, through the Global Environmental Facility (GEF), and Japan, through the World Bank PHRD programme, has recently provided the money to make the conservation objectives possible. The money is for biodiversity conservation and the drafting of legislation, treaties, and an application for the region to be recognized as World Heritage and Ramsar sites, and for community development projects and ecotourism infrastructure. More information: Greig Stewart: stewart@lesoff.co.za

Peatland/wetland action in South Africa

Since November 1997, an interdepartmental Peat Working Group (PWG) has been responsible for regulating the commercial utilization of peat resources in South Africa. The PWG also aims to make relevant government departments aware of the ecological and hydrological importance of peat, and the extent of the impacts of peat extraction and other activities on the resource base. All illegal peat mining operations have since been stopped or have submitted permit applications. Regular inspections ensure that further illegal extraction does not take place.

The PWG has furthermore established a Peat Forum, consisting of representatives from peat-related industries, government, researchers, and other interested parties, to enhance communication and understanding between peatland stakeholders in South Africa. Further challenges are the enhancement of understanding of peatland extent and distribution, and the value of peatlands for purifying and storing water and sustaining biodiversity. A fundamental question is, whether South Africa, with its very low rates of peat accumulation and looming water crisis, can afford to be removing peat for commercial

purposes. For more information contact Philip Remmer, Chair of the PWG: email: PhilipS@nda.agric.za

In early 1998 also a South African Wetland Action Group (SAWAG) was founded to maintain effective linkages between field workers active in wetland conservation. A key emphasis of the group is the promotion of sustainable use of wetlands. For more information contact John Dini: nat_jd@ozone.pwv.gov.za

Waterbirds agreement

The Agreement on the Conservation of African-Eurasian Waterbirds (AEWA) entered into force on 1-11-1999. Currently 20 Range States have signed and ratified this new instrument under the Bonn Convention. In the last few days Finland, Belgium and South Africa have signed and/or ratified the AEWA. The Interim Secretariat is aware that other countries have already started the process and will become Parties in the near future.

From 6-9 November 1999 the First Session of the Meeting of the Parties has taken place in Cape Town, South Africa. The agenda, including most of the meeting documents, is available on the website <http://www.wcmc.org.uk/AEWA> in French and English. In particular, the report on Conservation Status and the Conservation Guidelines are recommended for reading.

For more information contact:

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Belarus joins Ramsar Convention

Belarus becomes the Ramsar Convention's 117th Contracting Party. UNESCO has informed the Ramsar Bureau that it has received from the Government of Belarus a declaration of succession to the former Soviet Union and the Ramsar Information Sheet accompanying its designation of "Sporovsky Biological Reserve ('zakaznik')" as its first Ramsar site. The 19,384-hectare site is situated in the floodplain of the middle course of the Yaselda River, 2km south of the town of Beryoza in the Brest region. It includes one of the largest lowland mesotrophic sedge fen mires in Europe. On much of the mire the hydrological regime has been disrupted by drainage canal systems, but much of the site "appears to be in a condition very close to the natural one". It represents one of the largest European habitats of the Aquatic Warbler (*Acrocephalus paludicola*), a globally threatened species. The land belongs to the state and is rented by about 20 collective farms and

forestry enterprises; in 1999 it was declared a biological reserve of national importance, with all drainage and land reclamation prohibited and economic uses of the land officially regulated. A UK Darwin Initiative-funded project, carried out by the UK's RSPB and the Belarus Society for the Protection of Birds, is making a number of scientific studies of the site and will develop a management plan.

Nakaikemi Marsh

The Osaka Gas Company has placed a 10-year moratorium on any possible development at Nakaikemi Marsh in Japan. Nakaikemi Marsh, threatened by destruction by plans of Osaka Gas Company to build a gas storage site on the mire, received direct interventions from IMCG and IPS promoting site protection. The local non-government organization, Friends of Nakaikemi Marsh, is following up with extensive ecological surveys furthering establishing the biological diversity and other functions and values of this peatland.

See the previous Newsletter for more details.

Global Review of Wetland Resources

The extensive full report of the "Global review of wetland resources and priorities for wetland inventory" (2nd edition, edited by C.M. Finlayson and A.G. Spiers) is now available to browse on the Wetlands International - Africa, Europe, Middle East (AEME) web site:

http://www.wetlands.agro.nl/programs/GRoWI_2nd_edn/welcome.html

The review provides an overview of international, regional and national wetland inventories as well as other general information on global wetland resources;

- outlines steps to quantify the extent of global wetland resources and to provide a baseline for measuring trends in wetland conservation or loss;
- identifies priorities for establishing, updating or extending wetland inventories so as to improve the accuracy with which the global wetland resource can be quantified and described in the future.

Compulsory Purchase in Peel

To merge the Deurnese and Mariapeel bog remnants, the Dutch government will buy agricultural enclaves against compulsory purchase value. This will initially been done on a voluntary base, but if necessary non-voluntarily compulsory purchase will not be excluded, the responsible Secretary of State Faber declared on 22 December 1999 during his visit to the area.

New and recent Journals/Newsletters/Books/Reports

Aquaphyte: a newsletter about aquatic, wetland and invasive plants. Issue 19/2 (Fall 1999) includes announcements of meetings, an extensive sampling of recent research articles, books, and reports, and information on wetland and invasive plant species. Freely available from University of Florida Center for Aquatic and Invasive Plants:
varamey@nersp.nerdc.ufl.edu

Suo: the quarterly journal of the Finnish Peatland Society (in English and Finnish). Issue 50/3-4 (1999) includes a.o. an article on the impact of mire drainage on the regional climate. Subscription fee: FIM 160 + postage. Available from Finnish Peatland Society: birgit.hyyrylainen@turveliitto.fi

Peatlands International: the glossy Newsletter of the International Peat Society (IPS). Volume 1/1999 contains articles on the Czechian peat industry, on a workshop of IPS in Brussels with the EC Directorate General for Energy (to lobby the DG to classify peat not as a fossil fuel but as a biofuel; see elsewhere in this issue), on the following dinner debate with representatives of the European Parliament and Commission, on the Costa Rica Ramsar Conference, on peat balneology, and on the destruction of Southeast Asian peatlands ("Death of an Ecosystem"). Available from IPS, Kuokkalantie 4, FIN-40520 Jyväskylä. Email: ips@peatsociety.fi

International Peat Journal: the scientific journal of IPS. No. 8 (1998) includes a.o. articles on occurrence and mobility of radioisotopes in belarussian peat soils, seed banks in a cut-away finnish peatland, effects of lowered water levels on peat and vegetation in Whangamarino wetland (New Zealand), microbial biomass, N-transformation and physical properties in a restiad mire, and a review of the natural resource functions of tropical peatlands. No. 9 (1999) contains o.a. articles on optimising land resource development policies in Central Kalimantan peatlands, on using LANDSAT to estimate wetland surface albedo, on modelling of water and nitrogen dynamics as a tool for fen restoration, on ecosystem recovery after oil spills in West Siberian mires, on atmospheric interactions in the carbon balance of boreal peatlands, and several items on peatland forestry. Available from IPS (see above). Subscription fee: FIM 50 for IPS members (FIM 100 non-members) plus postage.

South African Wetlands: Newsletter on activities relating to the Ramsar Convention in South Africa. Issue 10 (Nov. 1999) contains articles on the Costa Rica Ramsar Conference, on the South African Wetland Action Group, on wetland conservation in Lesotho, and on the Rietvlei/Diep River and the Mkuze wetland complexes. Extra attention is paid in this issue to peatlands and the Peat Working Group (see more in this issue).

Freely available from the Dept. of Environmental Affairs & Tourism, Private Bag X447, Pretoria, 0001, RSA. Email Makoma Moloto:
Nat#032#Mm@ozone.pwv.gov.za

Telma: Journal of the German Peat Society (in German with English summaries). Issue 29 (Nov. 1999) includes articles on: the beginning and spread of bog development in NW Germany, the developmental history of two bogs in the Harz Mountains, development and human impact on a spring mire, hydrology and heath/nutrient dynamics in hummock-hollow complexes in Estonian bogs, vegetation of mires in Alaska, natural and anthropogenic sources of acidity in bogs, modelling nitrogen dynamics in a fen, the state bog conservation plan of Mecklenburg-Vorpommern, the peat geologist Kurd von Bülow, peat utilization in European horticulture, peat as a renewable resource, and 4 articles on "Hochmoorgrunland" (bog meadows) and its (future) role in agriculture, peat extraction, and nature conservation. Subscription/membership fee: DM 50. Available from DGMT/Gerfried Caspers, Stilleweg 2, D-30655 Hannmover, Germany. Email: g.caspers@bgr.de

Wetlands: the quarterly scientific journal of the Society of Wetland Scientists (SWS). Volume 19/2 (June 1999) included a.o. articles on peat, carbon accumulation, and mycorrhizas in a bog-fen-marsh gradient in Alberta, on seed banks of an Appalachian fen. Volume 19/3 (September 1999) presents various articles on hydrogeomorphic wetland classification, on patterns of tree species richness in forested wetlands, on *Carex aquatilis* leaf litter decomposition in Rocky Mountains fens, and on the Everglades Nutrient Removal Project. Subscription/membership fee US\$40. Information and membership forms: SWS, 810 E. Tenth St., P.O. Box 1897, Lawrence, KS 66044-8897.

Shine, C. & De Klemm, C. (1999). Wetlands, Water and the Law: Using law to advance wetland conservation and wise use. IUCN, Gland, Switzerland, Cambridge, UK, and Bonn, Germany. 330 p.

Overview on the role of law in wetland conservation throughout the world, amply illustrated with examples and case studies from nearly every nation. Focused primarily on the Ramsar Convention, it also covers other global and regional legal regimes, and investigates issues as land-use planning, river basin and coastal zone management, EIA, permit systems, economic incentives, enforcement, transboundary wetlands, and much more. Order from: IUCN Publications Services Unit, 219c Huntingdon Road, Cambridge CB3 0DL, UK. Email:
info@books.iucn.org.

Beintema, A. & Van Vessem, J. (1999) Strategies for Conserving Migratory Waterbirds: Proceedings of Workshop 2 of the 2nd International Conference on Wetlands and Development held in Dakar, Senegal, 8-14 November 1998.

Reviews conservation strategies for migratory waterbirds at intercontinental flyway level. A set of nine Conservation Guidelines is being produced. Price UKP 10.00 + p&p, order from: NHBS Mailorder Bookstore, 2-3 Wills Road, Totnes, TQ9 5XN. UK. E-mail: sales@nhbs.co.uk

Sanders, M.E. (1999) Remotely sensed hydrological isolation: a key factor predicting plant species distribution in fens. IBN-DLO, Wageningen, 136 p.

PhD thesis on the efficiency of remote sensing and geographical information systems (GIS) to identify hydrological isolation in fens in order to predict the potential distribution of rare plants, tested in the Weerribben (Netherlands). Methods proved to be very suitable and promising. The information obtained can be used to optimize field sampling for management administration, planning, and evaluation, and in scenario studies.

Limited number of copies freely available from IBN-DLO, P.O. Box 23, NL-6700 AA Wageningen, Netherlands. Email: m.j.vandieten@ibn.dlo.nl

Cowan, G.I. & Van Riet, W. (1998) A directory of South African Wetlands. Dept. of Environmental Affairs and Tourism, Pretoria. 50 p. + app.

Overview on location, area, type, protectional status, and threats of South African wetlands. Freely available from the Dept. of Environmental Affairs & Tourism, Private Bag X447, Pretoria, 0001, RSA. Email Makoma Moloto:

Nat#032#Mm@ozone.pwv.gov.za

Cowan, G.I. (ed.) (1999) Biota of South African Wetlands in relation to the Ramsar Convention. Dept. of Environmental Affairs and Tourism, Pretoria.

An overview of plants and animals occurring in South African wetlands with data on the habitats, threat status, and biogeography. Freely available, from address above.

Society of Wetland Scientists (1999) Hydric soil field guide for the United States. SWS, 31 p.

Condensed and paraphrased version of *Field indicators of Hydric Soils in the United States 4.0* (USDA, NRCS 1998) with additional information on soil textures, a list of indicators, and a glossary. Available from SWS for \$10.

Tiner, R.W. (1998) In search of swampland. A wetland sourcebook and field guide. Rutgers Univ. Press, New Brunswick, 264 p.

Overview of wetland ecology, status, and trends, covering wetland characteristics, formation, functions and values, causes of wetland loss and degradation, and wetland protection. With a field guide to wetland plants and animals (with identification keys), hydric soil identification, and general procedures for identifying wetlands in the field. Focuses on wetlands of the Northeast United States. \$26.

Minkkinen, K. (1999) Effect of forestry drainage on the carbon balance and radiative forcing of peatlands in Finland. PhD Thesis University of Helsinki, 42 p. + 6 original publications.

Peat accumulation (peat samples), CH₄ fluxes (measured), and C sequestration into tree stands (simulation models) were determined and used to calculate differences between drained and non-drained Finnish peatlands for the period 1900 - 2100. Peat C stores and C sequestration may on the long term increase or decrease after drainage for forestry, depending on the peat nutrient level and climatic conditions. As C stores in the tree stand markedly increase and CH₄ emissions decrease, forestry drainage has significantly decreased the greenhouse effects of Finnish peatlands and will continue to do so for the next century. The uncertainties in all C flux rates increase considerably in predictions for the future; C sequestration in tree stands is predicted to start to decrease around 2030, because of increased cuttings and decreased growth because of tree stand aging.

Selin, P. (1999) Industrial use of peatlands and the re-use of cut-away areas in Finland. PhD thesis University of Jyväskylä Finland, 239 p.

Currently 10.000 ha and around 2010 appr. 40.000 ha of cut-away areas will be released after peat extraction. Afforestation is considered the most popular after use alternative, but requires a limited peat thickness to enable root penetration in the mineral subsoil. Restoration and bird lakes are second bests.

Turunen, J. (1999) Carbon accumulation of natural mire ecosystems in Finland - application to boreal and subarctic mires. PhD thesis University of Joensuu, Finland. 30 p. + app.

Analysis of 1302 dated peat cores from Finland and 128 cores from Canada, USA, and Russia shows that the average long-term apparent rate of carbon accumulation (LORCA) for natural Finnish mires was 18.5 g m⁻² yr⁻¹. The modelled true actual average net accumulation rate (ARCA) was appr. 2/3 of LORCA. The inferred rate of addition to the catotelm was related to degree-days above zero; decay of peat material showed a logarithmic relation with mean annual temperature. LORCA was higher in the raised bog region than in the aapa region and in bogs generally higher than in fens.

The estimated total ARCA for boreal and subarctic mires was 43 Tg yr⁻¹, being about 40% lower than previous estimates. The total C pool of boreal and subarctic mires was estimated to be 273 Pg. The C stored in the mineral subsoil of mires reached equilibrium 4500 - 5000 years after initial paludification. This C sink may account for appr. 5% of the unaccounted C in the global carbon budget.

Available from: Joensuu Uni Library/Sales of Publications, P.O. Box 107, FIN-80101 Joensuu. email: joepub@joensuu.fi

García Sánchez-Colomer, M.R. (1998) Heterogeneidad del medio abiótico, composición florística y diversidad en humedales montanos mediterráneos (Sierra de Guadarrama). PhD thesis, Univ. Auton. de Madrid, 344 p. (in spanish)

Detailed study of the environmental conditions responsible for the composition and diversity of wetland (and peatland) plant communities in a mediterranean mountain area in Central Spain. Information: Manuel R. Garcia Sanchez-Colomer, Centro de Estudios Hidrográficos del CEDEX, Ministerio de Fomento, Pº Bº de la Virgen del puerto 3, 28005 Madrid, Spain. Email: manuel.colomer@cedex.es>

Müller-Wille, M. (1999) Opferkulte der Germanen und Slawen. Theiss, Stuttgart, 102 p. (in german).

An overview of the multitude of archaeological treasures of the stone age up to the Middle Ages found in Central European and South Scandinavian peatlands. DM 52.

Beug, H.-J, Henrion, I. & Schmüser, A. (1999) Landschaftsgeschichte im Hochharz. Die Entwicklung der Walder und Moore seit dem letzten Eiszeit. Papierflieger, Clausthal-Zellerfeld (Germany), 454 p. (in german).

Amazingly detailed monograph on the spatio-temporal development of over 30 mires in the (East and West) German Harz mountains., based on the analysis and interpretation of 12 pollendiagrams (with 14C dates) and over 3200 pollen samples of the transition peat - mineral subsoil. only DM 20.

Gorissen, I. (1998) Die großen Hochmoore und Heidelandschaften in Mitteleuropa. 196 p., Eigenverlag, Siegburg. (in german)

Systematic inventory of all bogs and heathlands with more than 1000 ha open area in Central Europe (Germany, Poland, Slovakia, and parts of Hungary, Austria, Switzerland, Belgium, Netherlands, and Denmark, with additionally examples from smaller areas and from neighbouring areas). Most important conclusions: * in Central Europe only 3 examples of large and largely intact bogs have remained; * the

majority of the large bog remnants with perspectives for regeneration are not yet sufficiently conserved. Available from Ingmar Gorissen, Kapellenstr. 43b, D-53721 Siegburg, Germany. DM 78.

Werkgroep Behoud de Peel (1999) De Verheven Peel in de lift. Werkgroep Behoud de Peel. Meijel, 130 p. (in dutch).

Detailed account on the abiotic perspectives and conservational policies to merge and enlarge two major dutch bog remnants by acquisition and partly inundation of 1100 ha of intensively used agricultural lands. (see also short news). Freely available from: Werkgroep Behoud de Peel, Molenbaan 29, NL-5768 RT Meijel, Netherlands. Email: jopibla@dds.nl

Van Seggelen, C. (1999) Vogels van de Groote Peel. Natuurhistorisch Genootschap, Maastricht. 528 p. (in dutch).

Very detailed avifauna of the Groote Peel National Park, a cut-over bog remnant and one of the best birding areas in the Netherlands (> 260 species, ca. 100 breeding annually). Bird observations from the whole 20th century were analysed and related to changes in land use and landscape structure. Available from: Publikatiebureau Natuurhistorisch Genootschap, Groenstraat 106, NL-6074 EL Melick (Netherlands). DFL 70,50.

Foppen, R., Graveland, J., de Jong, M. & Beintema, A. (1998) Naar levensvatbare populaties moerasvogels. IBN-DLO, Wageningen, 63 p. (in dutch).

Report of a study on the necessary arrangement and quality of wetlands for the long-term survival of wetland bird species. Two aspects are important: the total number of breeding pairs and the necessary number of core populations. Especially very large areas (> 10.000 ha) appear to be important. Available from IBN-DLO (see above). DFL 44.

Otchagov, D.M., Reijnen, R., Butovsky, R.O., Aleshenko, G.M. & Eremkin, G.S. (1999) Ecological networks and biodiversity in central Russia. IBN-DLO, Wageningen.

Analysis of the ecological network of bogs in the Petushinski region (Central Russia) with respect to the long term viability of 20 characteristic species of bog butterflies and birds with the LARCH model (Landscape ecological Rules for the Configuration of Habitat). It is shown, that almost all species need ecological networks to survive (i.e. the populations in single areas are not large enough) and two species, *Polyommatus optilete* and *Lanius excubitor*, are seriously threatened because the networks do not support viable populations. To improve the networks, better protection and restoration is necessary. Available from: IBN-DLO (see above). DFL 45.

Improvement of Peatland Conservation in Ukraine. Proceedings of the Ukrainian workshop of the Darwin Initiative (1999). Kiev, 72 p. (in ukrainian)

The proceedings of a workshop held in April 1999 in Kiev, organised by the Darwin Initiative Peatland Biodiversity Programme 1998-99. The book presents 11 specialist papers on ukrainian mires and peatlands, covering: types and genesis of mires and future developments, peatland vegetation types and their conservation, protection and management of peatland vegetation, negative effects of drainage on mires/peatlands, peat resources and peatland distribution in Ukraine, mires and peatlands in the Lvov region, results of the british-ukrainian expedition to Volyn Polissia, the role of NGO's in mire protection in Ukraine, a report on the workshop "Sharing expertise for the conservation of peatlands in Eastern Europe" (October 1998, Scotland), and

perspectives of peatland conservation under the Ramsar and Bern Conventions.

Stepanovich, I. M. (1999) The syntaxonomy and syndynamics of meadow vegetation of Belarus. PhD thesis summary, Minsk. 37 p. (in belarussian)

Gives an overview on the vegetation of meadows and unwooded mires/peatlands in Belarus. The author created a new system of meadow plant communities, using classical phytosociological methods and studied biotic and abiotic parameters of the vegetation, its productivity, and the distribution of the meadow vegetation types in Belarus. Further work was done on the accumulation and buffer capacity of meadow plants for heavy metals. The results will be used to elaborate strategies of protection, optimisation, and rational utilisation of meadow vegetation in Belarus.

UPCOMING EVENTS

Conservación de ecosistemas a nivel mundial, con énfasis en las turbas de Tierra del Fuego.

6 - 10 March 2000, Ushuaia, Argentina

For information contact: Andrea Coronato, acoronato@arnet.com.ar

3rd IMCG Classification and Terminology Workshop.

24-28 March 2000, Lagow, Poland

This 3rd Workshop will have five objectives:

- Review of near-finalised classification approaches for the seven Topic Areas, discussion of unresolved issues, and then compilation of the seven Topic systems into an integrated descriptive system.
- Agreement on the content of presentations concerning classification and terminology to be made at IMCG's Conference (and in possible joint events) during the Quebec 2000 Millennium Wetland Event.
- An IMCG European Regional Symposium, for those unable to attend the biennial Field Symposium and Congress in Canada but wishing to have an opportunity to be involved in deciding and influencing IMCG issues. Outputs from the Regional Meeting will be fed into the subsequent biennial Quebec Congress.
- Discussion on the Wise Use Guidelines for Global Peatlands currently under preparation by IMCG and IPS.
- Fine tuning of issues between editors and those authors of the European Mires Book present at the workshop.

The approximate costs will be 70 DM/day for people from "the west". This price includes a stay in a single room with bath, all meals, and a half day excursion by bus. Prices for people from the east (and other countries with "currency problems") will be (much) less. Furthermore we are looking for sponsors to enable more people to join.

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Québec 2000 Millennium Wetland Event

6-12 August 2000, Quebec, Canada

For further info, email: cqvb@cqvb.qc.ca

See also: <http://www.cqvb.qc.ca/wetland2000/>

and elsewhere in this Newsletter.

7th International Conference on Wetland Systems for Water Pollution Control

11-16 November 2000, Lake Buena Vista, Florida

Submission Deadline: January 24, 2000

For information contact:

Mandy Padgett, Conference Coordinator

Fax: 352-392-9734, Email: mnp@gnv.ifas.ufl.edu

See also:

http://www.ifas.ufl.edu/~conferweb/wpc/wpd_ab.htm