

International Peatland Society

Annual Report 2019

Secretary General's Review

2019 has been a very important year for the IPS. As the Society's first full-time Secretary General, I had the opportunity and the pleasure to meet and to get to know many representatives from our corporate stakeholders, National Committees, academic institutions, NGOs, international conventions and other organizations.

In this process I have been fortunate to learn what is essential about peat and the entire process chain from extraction to horticultural production and the relevance of peat as a constituent of growing media. In addition, I have learnt about the importance and role of peatlands in relation to greenhouse gas emissions, climate change mitigation and biodiversity, and hence the true challenges we face at an ever-increasing rate.

Last year was marked by noticeable developments that continue to add pressure on the peat and growing media industry. Energy peat production undertook more steep reductions in Ireland and Finland. In Germany, ministries

are taking concrete steps in the development and implementation of the "Torfminderungsstrategie", which aims to significantly reduce the use of peat in growing media for the professional market and to reduce it to zero in consumer products. These are strong signals, but they do not come as a surprise.

Governments are under huge pressure to fulfil their Paris Agreement commitments. According to the UNEP Emissions Gap Report 2019, a dramatic strengthening of Nationally Determined Contributions (NDCs) is unavoidable. In order to achieve the 1.5°C goal, countries must increase their NDC ambitions fivefold. Fivefold! Governments are standing with their backs to the wall, and it is clear that all options will be considered to reduce greenhouse gas emissions, especially the ones that are easy to implement. Peatland restoration and phase-out of peat extraction are among those options, as researchers and governments increasingly identify peatlands as ideal targets for stopping emissions on one side, and even building up carbon on the other.



The IPS year started with a consultation meeting of the Executive Board in Amsterdam on 29 January. Photo: Susann Warnecke

From an environmental and scientific point of view, there is little to argue with that, and we must not belittle predicted scenarios. Furthermore, we shall not forget the big picture, at the basis of which are the dimensions of environment, society and economy. Similar to the FAO's concept of the water, energy and food security nexus, those three dimensions are very much linked to one another, meaning that actions in any one particular area will have effects in one or both of the other dimensions. The big picture is about balance.

In many parts of the world, we are witnessing a paradigm shift in the way vegetables, fruits and even rice seedlings are produced. Traditional agriculture is being replaced by intensive greenhouse farming of food plant seedlings using growing media, or substrates. These substrates are mostly peat-based. This creates a massively growing demand for substrates. Phasing out peat will pose serious problems to these countries by limiting the availability of raw materials, and by inflating the prices of both raw materials and final products, ultimately influencing the lives of ordinary people and even jeopardizing their food security.

Replacing peat with alternative constituents is a desirable objective, but complete peat-free growing media have so far failed to meet the needs and standards of professional growers, with availability, quality (and

consistency thereof), high price and health issues being the main concerns. How do we ensure availability and quality of growing media while simultaneously reducing emissions? Should measures for climate protection be limited at the point when they endanger the existential need of the world population for food, at least until viable alternative solutions are developed? We need answers to these questions!

We are living in times of strong economic Darwinism. The current climate crisis and political decisions trigger rapid changes in the fitness landscapes of companies and industries. Industries that are unable to adapt will fall. In the biological world, adaptation to environmental changes commonly occurs through random mutations, eventually producing genotypes that are better adapted to changed conditions. What we need are such mutations. Quickly.

The good news is they do not need to be random. If we are smart enough, then we can create them, innovate them. We can no longer afford to say “never” or “it’s impossible”.

We need the courage to innovate and develop these “mutations”. But first of all, we need to change our mindset, because if we cannot change our minds, then we cannot change anything.

In this process of adaptation, it is of key importance to convey a truly open dialogue between all major stakeholders, from industry to environmental NGOs, international organisations and conventions, to keep them informed and involved, in order to mitigate conflicts and ultimately to find solutions. This is the core task of the IPS.

I wish you success and health for 2020.

Gilbert Ludwig

Secretary General
gilbert.ludwig@peatlands.org

Report of the Executive Board

Main Activities

New Secretary General

Starting from January 2019, the IPS’s Secretariat has been led for the first time in history by a full-time Secretary General. Gilbert Ludwig, PhD in Ecology and Environmental Management and originally from Switzerland, has been living and working in Finland for more than 25 years and started on his new tasks with enthusiasm and strength.

These comprised, in the first half of 2019, mainly visits to the IPS’s National Committees, industry members, NGO and convention partners to get to know stakeholders and hear their opinions.

During the second half of the year, he led several IPS workshops and participated, for instance, in the UNFCC COP25 meeting in Madrid. We are glad to have Gilbert on board!

New IPS Website

As the old IPS website was technically and visually outdated, in spring 2019 the

Secretariat asked several local media companies to come up with a convincing concept for a new internet presence. Trimedia Oy was chosen as the best provider, and after two months of dedicated work and brainstorming meetings, the new website at www.peatlands.org was launched.

It offers an open publication database, basic information on peat and peatlands, an event section, contact details of the Secretariat, Commissions, Executive Board and National Committees, a brand new blog and much more. Have a look!



Amsterdam meeting: EB members Frank Tamminga, Donal Clarke, Jack Rielely and Gerald Schmilewski studying IPS papers. Photo: Susann Warnecke



The second Commission Chair and Expert Group Coordinator meeting was held in Tallinn, Estonia in February. Photo: Samu Valpola

Conferences and Other Events

During the year the IPS got more and more involved in the preparations for the 16th International Peatland Congress 2020 (moved to 2021) in Tallinn, which is organised by the Estonian National Committee in cooperation with Publicon, a professional congress bureau. This will be a large and important event with over 300 presentations and 800 participants.

The IPS started its 2019 activities with a special Industry Strategy Meeting of Executive Board members in Amsterdam on 29 January, where the needs and challenges of the peat industry were discussed and analysed.

This was followed by the Second Expert Meeting of the IPS Commission Chairs (SAB) and Expert Group Coordinators in Tallinn, Estonia from 11 to 13 February.

In line with the theme of the year, Economy meets Environment, the Annual Convention 2019 was held in Bremen, Germany, combined with a seminar on “Future Use of Peat and Substitutes in Horticulture” from 13 to 15 May. The event had 120 participants and included the Annual Assembly.

After the summer, we followed up project and concept work during an expert workshop at the Heureka Science Center

in Tikkurila, Vantaa, Finland, on 26 August. Results were further discussed and developed at a CEO workshop during the Baltic Peat Forum in Palanga, Lithuania, from 4 to 6 September.

The highlight of the autumn was the First Chinese Symposium on “Peat for Food Production and Quality of Life” and the “China International Peat Product and Technology Expo” in Qingdao, China, from 16 to 21 September with 170 participants, numerous sessions and excursions.

Other conferences, workshops and field trips were organized by our National Committees, for instance, in Finland, Germany, Ireland and Canada.

Next year’s Annual Meeting will be held in June 2020, originally in Tallinn, now by email. The 2024 Congress will be hosted by the Chinese National Committee. The bidding process for 2028 will start in late 2020.

A list of IPS and related peat(land) events can be found in this report, and more information is included in the reports of the Commissions and National Committees in the attachments.

IPS Strategy and Structure

The Executive Board (EB) and the SAB of the IPS continued to implement the “IPS Strategy 2016 - 2020”. Work continued on staffing the expert groups with volunteers who are eager to carry out practical activities for the IPS.

Furthermore, the IPS was present at international conventions and other meetings of global importance. The most important of these in 2019 was the Ramsar STRP meeting in Gland in March and the UNFCCC COP25 in Madrid in December.



Bremen 2019

peat.lands - economy meets environment & society

Another important issue was the role of peat in the horticulture industry, and its contribution to food security.

Of course, climate and climate change remain an important area for most IPS members. In addition, the Society is strengthening its efforts to achieve true professional, geographical, gender and age balances across all of its bodies and activities.

Commissions

The work of the IPS is carried out by three Commissions and their expert groups, status end of 2019:

Peatlands and Economy, Chair: Ingrida Krigere
Peatlands for Agriculture: Dace Silina
Peatlands for Forestry: Sakari Sarkkola
Peat for Growing Media: Nina Kinnunen

Peatlands and Environment, Chair: Bernd Hofer
Peatlands and Climate Change: Gerald Jurasinski
Peatlands and Biodiversity: Lydia Cole
Peatland Restoration: Pete Whittington
Tropical Peatland Round Table: Jack Rieley

Peatlands and Society, Chair: Marie Kofod-Hansen
Peatlands Education, Communication & Publicity: was vacant
Peatland Conventions and International Affairs: Jack Rieley
Peatlands and Culture: Ilze Ozola
Peatlands and People: Dian Novarina

The IPS Commissions and their expert groups foster information exchange, suggest projects and initiate international conferences and other events. Commission

membership is informal and open to all IPS members – just contact the Chairs. All Commission Chairs are members of the IPS's Scientific Advisory Board.

The reports of the Commissions and their Expert Groups are available in the attachments. All contact details can be found on the IPS website: www.peatlands.org/about-us/commissions-expert-groups-and-sab.

Conventions

As in previous years, members of the Executive Board, Commission Chairs, the Secretary General, and other experts participated in meetings and in the work of the Ramsar Convention on Wetlands, the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the Global Peatland Initiative (GPI), the Food and Agriculture Organization of the United Nations (FAO), the Global Landscape Forum (GLF) and the Convention on Biodiversity (CBD), to name but a few. It is one of the tasks of the IPS to present science-based facts to decision-makers. This is best done in a face-to-face and balanced manner.

Among others, Professor Jack Rieley participated in the Ramsar STRP Meeting in Gland, Switzerland from 18 to 22 March 2019, and with Secretary General Gilbert Ludwig attending the international workshop "Synergies for Peatlands" organized by BfN, GMC, GP and Ramsar, on the Isle of Vilm from 21 to 24 May.

In addition, the Secretary General participated in BfN's international workshop on "European Peatland Strategies" in Bonn, Germany, on 28 and 29 October, and in the UNFCCC



The first regular meeting of the Executive Board in 2019 was held in Brussels, where we also met representatives of Growing Media Europe. Photo: Susann Warnecke



In April, the IPS staff attended the traditional spring seminar of the Finnish Peatland Society, Suoseura, in Helsinki. Photo: Susann Warnecke

Publications

Major Publications

In February 2019, the IPS published a brand-new supplement to its “Guide to International Conventions and Other International Organisations”.

A reviewed “Strategy for Responsible Peatland Management (SRPM)” edited by Donal Clarke and Jack Rieley, was launched in October 2019. Both are available at the IPS website as a PDF and in print format.

The IPS continued its successful online shop on the popular Holvi platform, which allows for the easy

purchase of about 60 publications, including proceedings, Peatlands International, the International Peat Journal and printed peat(land) books. Sales have significantly increased during the first year of use. Visit www.holvi.com/shop/peatlands. We now also offer a 10% discount for members.

COP25 in Madrid, Spain, between 2 and 13 December where the IPS and other NGOs had organized a side event: “Peatlands as Nature-Based Solutions (NBS)”.

IPS Projects

The IPS took over the second 50% payment charge for the 2018 project “Peat for Food and Quality of Life, Future Peat Demand”. Additionally, the IPS supported the nomination of the Flow Country as a World Heritage Site by writing a letter of recommendation.

IPS Membership

As of 31 December 2019, the IPS had 1,755 members in 42 countries, comprising 1,383 individual members, 230 corporations, 70 students and 46 honorary members (NCs and IPS), as well as 14 research institutes, 10 governmental institutes and two NGOs (new category). Most members of the IPS live in Indonesia, Germany, Finland, Poland and the Netherlands. The membership list is updated in collaboration with our National Committees and directly by our members, at least once a year. For early 2020 we plan to publish a special “List of Members for Members”. We are especially glad to have more than 300 new Indonesian members!

The IPS is represented locally by 17 National Committees with a total of 1,711 members. Of these, 12 operate in Europe, two in North America and three in Asia. Ukraine returned as the 17th National Committee in December. There are 25 men and 11 women serving as chairpersons and secretaries of these National Committees. Operating on behalf of the IPS in countries with significant peatland resources and/or an active peatland or peat industry, the National Committees promote the environmental, societal and economic values of peatland and peat and provide a forum for information exchange.

In other countries, the IPS has 22 individual, 11 corporate, six student, four honorary and one institutional member. For full member statistics see the appendices. Anyone interested can join the IPS at www.peatlands.org/join-us.

Peatlands International

Four issues of the IPS magazine were published in 2019 and distributed to approximately 1,500 members by email. The Chief Editor was Acting Secretary General Gilbert Ludwig and editing and layout tasks were carried out by Communications Manager Susann Warnecke.

Some of our corporate members support the IPS by placing advertisements in the magazine. Members receive Peatlands International for free.

The magazine is supported by an Editorial Board, which consisted of the following members at the end of 2019. A review of the Board is planned for 2020.

- Rachel Carmenta, UK
- Lydia Cole, UK
- Catherine Farrell, Ireland
- Marie Kofod-Hansen, Sweden
- Juhani Päivänen, Finland
- Jack Rieley, UK
- Anne Jelle Schilstra, The Netherlands
- Paul Short, Canada
- Lech Szajdak, Poland
- Michael Trepel, Germany
- David Wilson, Ireland

Previous issues of Peatlands International can be found via the IPS document database at peatlands.org/publications/document-database, while most of the printed issues (before 2013) can be ordered from the IPS online store.

To publish in the magazine, please contact Susann Warnecke at susann.warnecke@peatlands.org. Deadlines are at the end of February, May, August and November.

Peatland Snippets

Ten issues of the IPS newsletter Peatland Snippets were published in 2019. The monthly electronic newsletter of the IPS is sent out by email to about 1,500 members.

Older newsletters from 2002 to 2016 can be downloaded from the IPS document bank. Members and friends of the IPS are very welcome to contribute to the newsletter – just contact the IPS Secretariat.

Briefing Notes

In 2019, the IPS distributed five Briefing Notes (10 to 14) to all corporate members to inform them about current developments at international level and other issues.

Mires and Peat Scientific Journal

During 2019, the scientific online journal Mires and Peat, owned jointly by the IPS and IMCG, published its regular Volume 24 (2019) as well as special volumes 25: “Renewable Resources from Wet and Rewetted Peatlands”. The latest (2017) impact factors are 1.326 (two-year impact factor) and 1.638 (five-year impact factor).

Dr Olivia Bragg continued as Editor-in-Chief and Professor Jack Rieley as Deputy Editor-in-Chief, with a team of 12 Editors making up the Editorial Board. There are 28 Associate Editors who review the submitted manuscripts. Michael Trepel is the Website Administrator.

Mires and Peat is the peer-reviewed open-access scientific journal of the IPS and the IMCG, which is freely available (www.mires-and-peat.net) to all those interested in peat, peatland and mire research. The IPS supports the journal with €5,000 annually.

The journal is indexed by Thomson Reuters Web of Science, Elsevier Scopus, EBSCO Environment Complete, CABI Abstracts, CSA and the Directory of Open Access Journals. Papers are given a DOI and safely archived via Portico. High-quality papers are welcome, in order to maintain this important publication.

Social Media

The IPS shares information about its own and related activities, press articles and conference announcements, via its Facebook and LinkedIn pages. In addition, the Secretariat posts on Instagram, mostly during IPS events.

At the end of 2019, 1,055 people, mostly aged between 25 and 34, were following the IPS on Facebook, the majority of whom were not members of the Society. The discussion group on the same page had 94 members in early 2019.

The IPS LinkedIn group, which allows networking between around 500 peat and peatland professionals, has also proven to be a great tool for sharing and collecting information quickly and making new contacts. The now one-year-old IPS “company page”, which has 334 followers, allows even easier sharing of official information than via the group.



One highlight of the year was the Annual Convention and very informative IPS Symposium on “Future Use of Peat and Substitutes in Horticulture” with 120 participants in Bremen in May. Photo: Susann Warnecke

Public Discussion

Climate change, food security, and phasing out energy peat were important topics with respect to peatland management in the media in 2019. Other topics varied slightly from country to country.

The IPS regularly follows Google News and various Google Scholar alerts on peat, mire and peatland topics, and shares these on occasion via email with the EB, SAB, experts and National Committees, as well as in Peatland Snippets and on its Facebook or LinkedIn page.

Peat and Peatland Events

The following conferences, convention meetings and other international events were of relevance to the IPS and its members in 2019:

IPS EB Industry Strategy Meeting
Amsterdam, the Netherlands, 29 January 2019

World Wetlands Day
2 February 2019
www.worldwetlandsday.org

IPS Commission and Expert Group Meeting
Tallinn, Estonia, 11 - 13 February 2019

25th PERG's Symposium
Université Laval
Québec City, Canada, 18 - 19 February 2019
www.gret-perg.ulaval.ca

Climate-friendly Management of Brandenburg's Peatlands
Brandenburgs Moore klimafreundlich bewirtschaften
- Chancen für die Landwirtschaft!
Potsdam, Germany, 27 February 2019
<https://mlul.brandenburg.de/cms/detail.php/bb1.c.622200.de>

Ramsar STRP22
Gland, Switzerland, 18 - 22 March
www.ramsar.org

IPS Executive Board Meeting
Brussels, Belgium, 20 - 21 March 2019

Finnish Peatland Society
Spring Meeting and Seminar
Helsinki, Finland, 1 April 2019
www.suoseura.fi

EGU General Assembly 2019
Vienna, Austria, 7 - 12 April 2019
www.egu2019.eu

Open Science Meeting 2019 of the Global Land Programme
Transforming Land Systems for People and Nature
Bern, Switzerland, 24 - 26 April 2019
<https://glp.earth/osm-2019>

Seminar on 'Climate-smart After-use of Terminated Cutover Peat Bogs by Rewetting for Prospective Sphagnum Farming'
SLU, Campus Ultuna
Uppsala, Sweden, 7 May 2019
sabine.jordan@slu.se

Cumbria BogLIFE
Newton Rigg, Penrith, Cumbria, UK, 7 - 8 May 2019
<https://cumbria-bogs-life-2019.eventbrite.co.uk>

**IPS Symposium and Annual Assembly
Economy meets Environment and Society: Future Use of Peat in Horticulture
Bremen, Germany, 13 - 15 May 2019
www.ips2019.com**



Also the Annual Assembly of National Representatives 2019 was held in Bremen. Photo: Susann Warnecke



One of the two popular excursions went to the nursery and garden center Melle, where the participants got first hand experience on growers' and customers' demands. Photo: Nick van de Griendt

Global Landscapes Forum and 49th Session of the IPCC
Climate, Landscapes and Lifestyles: It is Not Too Late
Kyoto, Japan, 13 May 2019
<https://events.globallandscapesforum.org/kyoto-2019>

27th European Biomass Conference EUBCE 2019
Lisbon, Portugal, 27 - 30 May 2019
www.eubce.com

Society of Wetland Scientists
2019 Annual Meeting
The Role of Wetlands in Meeting Global Environmental
Challenges: Linking Wetland Science, Policy, and Society
Baltimore, Maryland, 28 - 31 May 2019
www.swsannualmeeting.org

CSPMA Semi-Annual Meeting
Rivière-du-Loup, Quebec, Canada
5 - 6 June 2019, www.peatmoss.com

LIFE REstore International Conference "Sustainable
Management of Degraded Peatlands and Climate Change
Mitigation"
Riga, Latvia, 13 - 14 June 2019
<https://restore.daba.gov.lv/public/eng/jaunumi/92>

Global Landscapes Forum
Annual Conference
Bonn, Germany, 22 - 23 June 2019
<https://events.globallandscapesforum.org/bonn-2019>

ISHS-IPS III International Symposium on Growing Media,
Composting and Substrate Analysis
Milan, Italy, 24 - 28 June 2019
www.susgro2019.com

9th Trondheim Conference on Biodiversity
Trondheim, Norway, 2 - 5 July 2019
<https://trondheimconference.org>

RSPO: Sustainable Palm Oil: A Shared Responsibility
Accra, Ghana, 20 - 22 August 2019
<https://rspo.org>

IPS Heureka Workshop
The Future of Peat-Based Growing Media
Tikkurila, Finland, 26 August 2019

Open-Ended Working Group on the Post-2020 Global
Biodiversity Framework
Nairobi, Kenya, 27 - 30 August 2019
www.cbd.int

Baltic Peat Producers' Forum
Palanga, Lithuania, 4 - 6 September 2019
<https://balticpeatproducersforum.eu>

WETSCAPES Conference: Understanding the Ecology of
Restored Fen Peatlands for Protection and Sustainable Use
Rostock, Germany, 10 - 13 September 2019
www.wetscapes.uni-rostock.de/en

Finnish National Committee (Suoseura)
Excursion to Northern German Paludiculture Sites
Germany, 15 - 20 September 2019
www.suoseura.fi

IPS Symposium
Growing Media for Food and Quality of Life and 1st
International Peat-based Products and Technology Expo
Qingdao, China, 16 - 21 September 2019
www.ips-cnc.com

8th World Conference on Ecological Restoration
Cape Town, South Africa, 24 - 28 September 2019
www.ser2019.org

German Peat Society (DGMT)
Annual Meeting
Rendsburg, Germany, 25 - 28 September 2019
www.dgmtev.de

XXV IUFRO World Congress: Forest Research and
Cooperation for Sustainable Development
Curitiba, Paraná, Brazil, 29 September - 5 October 2019
<http://iufro2019.com>

IVG German Peat and Humus Day
Bad Zwischenahn, Germany, 10 October 2019
www.ivg.org

Irish Peatland Society
Annual Meeting, Study Tour and Seminar
Tullamore, Ireland, 15 October 2019

European Peatland Strategies: International Workshop of BfN
Bonn, Germany, 28 - 29 October 2019
www.peatlands.org/european-peatland-strategies

Canadian Sphagnum Peat Moss Association
31st Annual General Meeting
Toronto, Ontario, Canada, 6 - 7 November 2019
www.peatmoss.com

Bioenergia ry
Finnish Peat Day
Tampere, Finland, 11 November 2019
www.bioenergia.fi

IPS Executive Board Meeting
Phone meeting
20 November 2019

German Peat Society (DGMT)
Peatland Restoration in Germany
Oldenburg, Germany, 21 November 2019
www.dgmtev.de

CBD 23rd Meeting of the Subsidiary Body on Scientific,
Technical and Technological Advice
Montreal, Canada, 25 - 29 November 2019
www.cbd.int

UNFCCC COP 25 / CMP 15 / CMA 2
Madrid, Spain, 2 - 13 December 2019
<https://unfccc.int>



Andreas Bauerochse, Joachim Blankenburg and his wife, and new Honorary Member Gerfried Caspers had organised a perfect Annual Convention for the IPS. Dankeschön! Photo: Lulie Melling



The excursion also included visits to peatland restoration sites. Photo: Nick van de Griendt

Southern Hemisphere Regional Conference on Permafrost of the International Permafrost Association (IPA)
Queenstown, New Zealand, 4 - 14 December 2019
<https://southcop19.com>

For all related events attended by IPS members, please visit www.peatlands.org/events, read the Commission and National Committee reports as well as Peatlands International 1-4.2019.

Cooperation

The IPS cooperates internationally with the Ramsar Convention on Wetlands, FAO, UNFCCC, CBD, the Global Peatlands Initiative (GPI), the International Society for Horticultural Science (ISHS), the Society for Ecological Restoration (SER), the International Mire Conservation Group (IMCG) and the Society of Wetland Scientists (SWS), as well as Growing Media Europe (GME) and the Canadian Sphagnum Peat Moss Association (CSPMA).

Finances and Funding

The IPS is fully funded by membership fees, amounting to €143,000 in total. In addition, the IPS still benefits from the Commission payments of the International Peat Congress in Kuching (2018) and the Annual Convention in Aberdeen (2017), which will be used in the period 2018 - 2020. In addition, the IPS collects Secretary General contributions of €86,000 from 10 to 13 of its partners between 2019 and 2021.

The Income Statement of the IPS shows a deficit of €28,200 for the 2019 financial year. This is, according to the budget, due to gradually using the 2017 surplus of €81,000 to fulfil the IPS Strategy.

Bad debts amounting to €800 (unpaid invoices) had to be removed from the Income Statement. Receivables, mainly membership fees for 2019, amounted to €26,000 at the end of the year.

The IPS continues to search for additional core and project funding from outside sources. The total income of the IPS was €252,700, with expenditure amounting to €280,600. The depreciation in the value of equipment amounted to €300 (25%). Assets and liabilities were €208,700 on 31 December. More details can be found in the financial appendices of the Annual Report.

With regard to the future, there is some uncertainty in the payment of the outstanding 2018 and 2019 fees. It is planned to remove small corporate and individual members as bad debts in spring 2020. We expect to receive the larger payments by National Committees and industry partners during the first months of 2020.

The accounts and financial statements of the IPS were audited by Authorized Public Accountant Jenni Kovanen, of Inkeröinen & Himanen Oy.

Administration

Annual Assembly

The Annual Assembly of National Representatives was held on 13 May 2019 in Bremen, and was attended by representatives of 13 National Committees (Canada, China, Estonia, Finland, Germany, Indonesia, Latvia, Lithuania, Malaysia, the Netherlands, Sweden, the UK and the USA) and many observers.

The Assembly confirmed the Annual Report of 2018, the Plan of Activities, Budget and Membership Fees for 2019 and the Interim Budget and Membership Fees for 2020. The Assembly also elected the Auditors for the IPS for 2018 and 2019.

An Extraordinary Assembly to elect a new Auditor (Jenni Kovanen) was held by email between 28 January and 2 February 2019, as the previously elected Auditor (Arto Saarinen) became unqualified due to a company merger.

National Committees

At the end of the year, the IPS was represented locally by the following National Committee Chairs and Secretaries in 17 countries:

Canada

Dr Jean-Yves Daigle, jydaigle@nb.sympatico.ca
Paul Short, cspma@peatmoss.com

China

Prof Wang Shengzong, szwang@nenu.edu.cn
Prof Meng Xianmin, mengxm3711@163.com

Estonia

Erki Niitlaan, erki@turbaliit.ee

Finland

Dr Tuula Larmola, suoseura49@gmail.com
Sanna Piilo, suoseura49@gmail.com
Hannu Salo, hannu.salo@bioenergia.fi (Industry)

Germany

Dr Andreas Bauerochse, bauerochse@dgmtev.de
Jörn Kasch, kasch@dgmtev.de
Arne B. Hückstädt, hueckstaedt@ivg.org (Industry)

Indonesia

Prof Supiandi Sabiham, supiandi@yahoo.com
Prof Fahmuddin Agus, fahmuddin_agus@yahoo.com
Prof Budi Intra Setiawan, budindra@ipb.ac.id

Ireland

Dr Catherine O'Connell, bogs@ipcc.ie
Pat Fitzgerald, patandclairefitzgerald@gmail.com

Japan

Prof Mitsuru Osaki, mosaki@chem.agr.hokudai.ac.jp

Latvia

Ingrida Krigere, ingrida@peat.lv

Lithuania

Giedrius Kavaliauskas, giedrius.kavaliauskas@klasmann-deilmann.com
Oksana Strasiuskiene, oksana.strasiuskiene@klasmann-deilmann.com
Ugne Radziunaite-Sutjeviene, ugne.radziunaite@lpk.lt (Maternity Leave)

Malaysia

Dr Lulie Melling, luliemelling@gmail.com
Frederick Haili Teck, fhteck@gmail.com
Sharon Yu Ling Lau, lauyuling@gmail.com (Treasurer)



On 26 August, invited experts discussed “The Future of Peat-Based Growing Media” during a workshop at the Heureka Science Center in Tikkurila, Vantaa, Finland. Photo: Hilikka Heikkilä, jamk.fi

The results of the workshop were then discussed during a meeting with EB members, industry representatives and company CEOs during the Baltic Peat Producers Forum in Palanga, Lithuania, in September. Photo: Susann Warnecke



The Netherlands

Drs Guus van Berckel, vanberckel@griendtsveen.de
 Dr Michiel Gerding, secretaris@veengenootschap.nl

Poland

Prof Dr Lech Wojciech Szajdak, szajlech@man.poznan.pl
 Marek Szczepanski, marek.szczepanski@isrl.poznan.pl

Sweden

Jan Burvall
 Sylvia Jonsson, sylvia.jonsson@ovikenergi.se
 Ingrid Kyllerstedt, ingrid.kyllerstedt@svensktorv.se
 Dr Sabine Jordan, sabine.jordan@slu.se

United Kingdom

Prof Susan E Page, sep5@le.ac.uk
 Prof Jack Rieley, jack.rieley@btinternet.com

USA

Donald N Grubich, dngrubich@gmail.com
 Dr Thomas J Malterer, tmalter2@d.umn.edu

National Committee and Commission reports are published in the attachments, and latest full contact details are available, at www.peatlands.org/about-us/national-committees.

Executive Board

The 11-person Executive Board currently consists of six EB members with an industrial background, while five come from the science community.

They comprise eight men and three women, or eight Europeans, two Asians and one North-American. The members of the EB at the end of 2019 and their terms of office were/are as follows:

President

Gerald Schmilewski, Germany
 2016-2020

1st Vice President

Guus van Berckel, the Netherlands
 2016-2020

2nd Vice President

Samu Valpola, Finland
 2016-2020

Ordinary Members:

Donal Clarke, Ireland	2016-2020
Paul Short, Canada	2016-2020
Erki Niitlaan, Estonia	2018-2020
Zhengping Wang, China	2018-2020
Sabine Jordan, Sweden	2018-2022
Jack Rieley, United Kingdom	2018-2022
Lulie Melling, Malaysia	2018-2022
Frank Tamminga, Germany	2018-2022

The second definitive highlight of the year was the First China Peat Symposium “Growing Media for Food and Quality of Life” and 1st International Peat-based Products and Technology Expo in Qingdao in September. Photo: Hannu Salo



Professor emeritus Juhani Päivänen, Honorary President of the IPS, also has the right to attend all EB meetings. In addition, Cecilia Luetgebrune, Secretary General of Growing Media Europe was accepted as observer.

The main administrative meetings of the IPS EB in 2019 were held in Brussels, Belgium on 20 and 21 March, in Bremen, Germany on 13 May, in Qingdao, China on 16 September, and by phone on 20 November.

The decisions of these meetings were disseminated through Peatland Snippets and Peatlands International and by email to the National Committees and Commissions.

Scientific Advisory Board

The SAB held its second expert meeting in Tallinn, Estonia from 11 to 13 February 2019, attended by the Commission Chairs, Vice Chairs and expert group coordinators. The meeting was very productive. A third meeting is planned for 4 and 5 March 2020 in Prague, Czech Republic.

The SAB provides the IPS with advice and information on matters of scientific, technical and cultural importance, drawing upon the pool of knowledge available from the Commissions and elsewhere, along with promoting and disseminating research results.

It normally meets twice a year in conjunction with other IPS meetings. As in previous years, the IPS has provided funding for travel of up to €500 per member.

The amount was increased in 2018-2019 to make expert meetings possible, as long as extra funds are available.

Members of the SAB at the end of 2019 were as follows.

Chair:

Samu Valpola, Finland, Second Vice President

Members (Commission Chairs):

Ingrida Krigere, Peatlands and Economy, Latvia
 Bernd Hofer, Peatlands and Environment, Germany
 Marie Kofod-Hansen, Peatlands and Society, Sweden

Secretary:

Susann Warnecke, IPS Secretariat

Honours

Allan Robertson Grants for Research Students and Young Professionals

In 2019, the IPS sponsored the “Allan Robertson Grants for Research Students and Young Professionals” (€500) with a budget of €5,000. Altogether 25 applications were submitted.

Funding was made available from the IPS, with generous contributions from IPS members and the National Committees of UK and Estonia. The winners were:

- Monika Aarniste (EST), Tallinn University of Technology: Digitalized Database of Estonian Peatlands
- Luke Andrews (WAL), University of York: Peatlands and Climate Change: Using the Past as a Key to the Future

- Scott Davidson (SCO), University of Waterloo: Impact of Wildfire on Methane Emissions from a Continental Boreal Peatland
- Ian Detrey (ENG), The University of the Highlands and Islands: Bog in a Box; Long-term Peat Storage for Rehabilitation
- Abigail Gwynn (ENG), University of Exeter: Effects of Peatland Forest Fires on Orangutan Behaviour and Health
- William Jessop (ENG), University of York: Creating Sustainably Wooded Peatlands
- Claire McVeigh (IRL), Queen's University Belfast: Weathering Below Blanket Bogs and Potential Impacts on Carbon Dynamics
- Christopher Schulze (GER), University of Alberta: Pathways of Nitrogen in Thawing Permafrost Peatlands in Subarctic Canada
- Amanda Sinclair (AUS), RMIT University: Physical and Chemical Properties of Tropical Peat Informing Peatland Restoration
- Lauren Thompson (CAN), University of Alberta: Mercury Export from Thawing Permafrost Peatlands



The Symposium attracted a large audience of peat and oatland experts as well as growers from all over Asia, the Americas and Europe. Photo: Susann Warnecke

Reports of the 2019 winners will be published in Peatlands International in summer 2020.

The deadline for the 2020 Allan Robertson Grants is 31 January, and the new winners will be announced in early April 2020, originally for travelling to IPC2020.

Funds of €840 have been obtained through the Malaysian and UK National Committee during the Annual Convention in Bremen (for 2020), which is much appreciated.



Interested audience at the “unplugged” session of the Commissions on Peatlands and Environment and Peatland and Society in Qingdao. Photo: Susann Warnecke

Bettina Hedden-Dunkhorst of BfN and Tobias Salathé from Ramsar speaking at the European Peatland Strategy Workshop in Bonn, Germany, in October. Photo: Gilbert Ludwig



corporate members and other companies. Dr Ludwig started work on 1 January 2019.

The IPS Communications Manager, Susann Warnecke, took care of the administration, communications, event management and finance of the IPS, supported by the accounting office TietoAkseli, the Auditor and IT, as well as other service providers.

Attachments

- Member Statistics
- Financial Report
- Signatures
- Auditor's Statement
- Commission Reports
- National Committee Reports
- See you in summer 2021!

Honorary Members

At the end of the year, the IPS had 22 honorary members. Honorary membership is conferred by the EB on persons nominated mostly by National Committees, who have made outstanding contributions to the IPS and to international cooperation on peatlands and peat. Current honorary members are as follows.

- | | |
|-----------------|---|
| Belarus: | Ivan I. Lishtvan |
| Canada: | Jean-Yves Daigle, Gerry Hood |
| Finland: | Matti Hilli, Markku Mäkelä,
Yrjö Pessi, Juhani Päivänen,
Jaakko Silpola, Raimo Sopo |
| Germany: | Gerfried Caspers, Hartmut
Falkenberg |
| Hungary: | F. Baranyai |
| Ireland: | Paddy Hughes |
| Latvia: | Ansis Snore |
| Poland: | Piotr Ilnicki |
| Russia: | A.K. Dergunov, B.N. Sokolov |
| United Kingdom: | Richard Clymo, Neil Godsman |
| USA: | Don N. Grubich, Tom Malterer,
Nick van de Griendt |

Sadly, David Bellamy passed away in December 2019. Following the nomination of the German National Committee, the Executive Board appointed Gerfried Caspers as a new honorary member in Bremen in May.

Secretariat and Staff

The IPS Secretariat is situated at the StartUp Leipomo Centre for Young Enterprises at Nisulankatu 78 B, 40720 Jyväskylä, Finland; mobile: +358 40 418 4075; email: info@peatlands.org or firstname.lastname@peatlands.org.

In autumn 2018, a full-time Secretary General, Dr Gilbert Ludwig, was recruited, with funding provided by a dozen IPS

Susann Warnecke

Communications Manager
susann.warnecke@peatlands.org



At the Horti China Exhibition. Photo: Susann Warnecke

Membership Statistics

	Individual members	Corporate Members	Research Institutes, Universities	Government al Institutes	NGOs	Honorary Members	Students	TOTAL
Indonesia	431		1					432
Germany	272	40	5	6		11	38	372
Finland	263	15				12	12	302
Poland	98	3				1		102
The Netherlands	52	15	5	1		2	1	76
Japan	46						4	50
Malaysia	41	5						46
United Kingdom	25	5	1	1	1	2	7	42
Ireland	33	4		1	1	1	1	41
Latvia	8	23				7		38
Estonia		37				1		38
China	37							37
Canada	9	23				2	1	35
Sweden	12	21	1					34
USA	21	4		1		3		29
Lithuania	3	21						24
Ukraine	10	3						13
31 December 2019	1361	219	13	10	2	42	64	1711
31 December 2018	1021	216	11	12		41	62	1363
31 December 2017	1048	218	12	11		39	59	1387

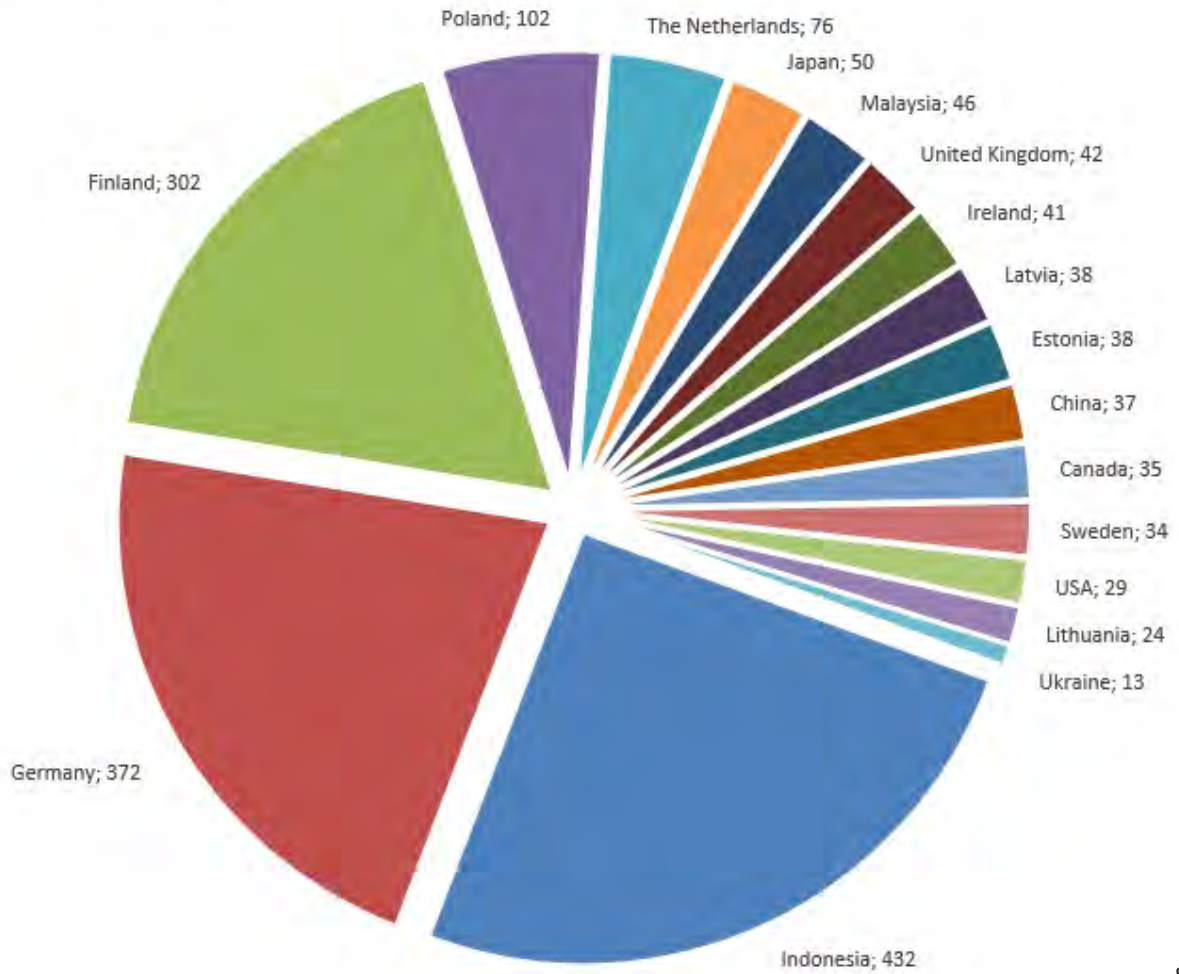
	Individual Members	Corporate Members	Students	Honorary Members	NGOs	Research Institutes, Universities	Government al Institutes	TOTAL
Hungary	6			1				7
Denmark	1	2	1					4
Norway	1	2				1		4
Russia	1	1		2				4
Spain	2	1						3
Australia	1		1					2
Belgium	1	1						2
France		2						2
Italy	2							2
Singapore	1		1					2
Bangladesh			1					1
Belarus				1				1
Bulgaria	1							1
Chile	1							1
Ethiopia			1					1
Georgia		1						1
Myanmar	1							1
New Zealand	1							1
Peru			1					1
Romania	1							1
Slovenia	1							1
Turkey		1						1
31 December 2019	22	11	6	4	0	1	0	44
31 December 2018	23	10	6	4		1		44
31 December 2017	23	12	9	4		2		50
	1383	230	70	46	2	14	10	

	December 2019	December 2018	December 2017	December 2016	Balance
NC members	1711	1363	1387	1441	-24
Non-NC members	44	44	50	54	-6
	1755	1407	1437	1495	-30

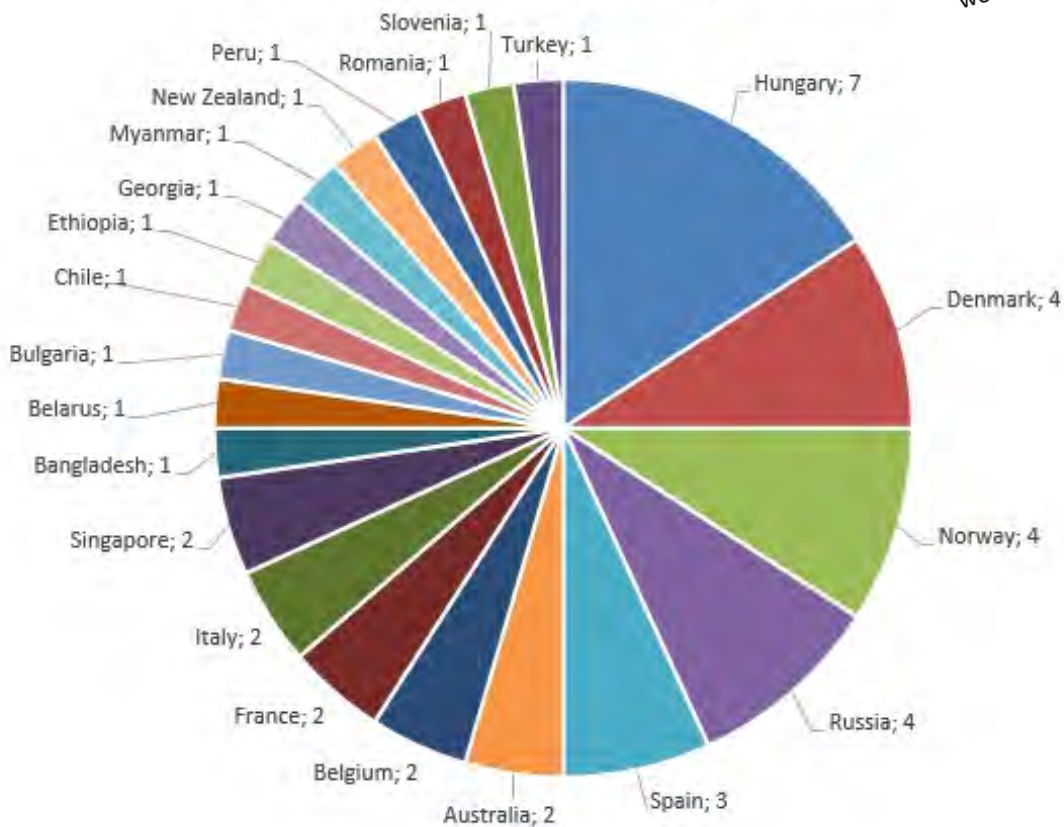
The National Committees of Belarus, CZ, and Russia are suspended until membership fees are paid.

This Annual Report will be presented to the Annual Assembly 2020 in June and published on the IPS website at www.peatlands.org together with the official Financial Statement and Auditors Report.

IPS members by country, 31 Dec 2019



Countries without a National Committee



Thank you very much for your work input and support!

International Peatland Society

Business ID: 1074181-4

Financial statement in accordance with the Accounting Ordinance for
small- and micro-sized enterprises
between 01.01.2019 - 31.12.2019

This financial statement is to be stored until 31.12.2029

Financial statement 01.01.2019 - 31.12.2019

Index

Balance sheet	3
Income statement	5
Notes on the financial statements	6
Date and signatures.....	8
Auditor's note.....	8
List of accounting records and materials	9

The financial statement and accounting journals are to be stored for 10 years after the financial year.

Financial year's bookkeeping material is required to be stored for 6 years, beginning from the end of the year the financial year has ended.

This financial statement has been prepared by:
UHY TietoAkseli, authorized accounting firm
info@tietoakseli.fi

Contact information for International Peatland Society

Address: Nisulankatu 78, 40720 Jyväskylä

Business ID: 1074181-4

Domicile: Jyväskylä

1074181-4

Balance sheet

	31.12.2019	31.12.2018
ASSETS		
NON-CURRENT-ASSETS		
Tangible assets		
Machinery and equipment	903,62	1 204,82
Tangible assets in total	903,62	1 204,82
NON-CURRENT ASSETS TOTAL	903,62	1 204,82
CURRENT ASSETS		
Receivables		
Short term		
Trade debtors	24 353,50	38 651,00
Other receivables	1 677,71	1 413,37
Prepayments and accrued income		895,64
Short-term receivables in total	26 032,21	40 960,01
Total receivables	26 031,21	40 960,01
Cash in hand and at banks	181 788,88	186 632,24
CURRENT ASSETS TOTAL	207 820,09	227 592,25
ASSETS IN TOTAL	208 723,71	228 797,07

1074181-4

	31.12.2019	31.12.2018
LIABILITIES		
CAPITAL AND RESERVES		
Retained earnings	207 943,18	230 119,26
Surplus (-deficits) for the financial year	-28 189,34	-22 176,08
CAPITAL AND RESERVES TOTAL	179 753,84	207 943,18
CREDITORS		
Short term		
Accounts Payables	8 147,54	5 493,40
Other creditors	2 373,86	902,39
Accruals and deferred income	18 448,47	14 458,10
Short term creditors total	28 969,87	20 853,89
Creditors in total	28 969,87	20 853,89
LIABILITIES IN TOTAL	208 723,71	228 797,07

1074181-4

Income statement

	01.01.2019 - 31.12.2019	01.01.2018 - 31.12.2018
ACTUAL OPERATION		
PUBLISHING		
Income	4 961,07	7 350,06
Expenses	-27 856,85	-8 151,16
PUBLISHING TOTAL	-22 895,78	-801,10
CONFERENCES		
Income	14 333,15	4 150,00
Expenses	-13 110,11	-10 296,02
CONFERENCES TOTAL	1 223,04	-6 146,02
PROJECTS		
Income		
Expenses	-6 000,00	-14 642,00
PROJECTS TOTAL	-6 000,00	-14 642,00
OTHER ACTUAL OPERATION		
Income		
Income	90 399,99	3 000,00
Expenses		
Wages and salaries	-114 703,74	-70 806,64
Pensions	-20 002,95	-9 464,98
Other insurances required by law	-1 981,18	-1 090,31
Depreciations	-301,20	-602,40
Other expenses	-95 990,40	-65 324,86
OTHER ACTUAL OPERATION TOTAL	-142 579,48	-144 289,19
ACTUAL OPERATION TOTAL	-170 252,22	-165 878,31
SURPLUS-/OPERATING DEFICIT	-170 252,22	-165 878,31
MEMBERSHIP FEES		
Income	143 027,50	144 823,00
Expenses	-812,00	-1 155,15
MEMBERSHIP FEES TOTAL	142 215,50	143 667,85
SURPLUS-/TRADING DEFICIT	-28 036,72	-22 210,46
INVESTMENT AND FINANCING ACTIVITY		
Income		35,13
Expenses	-152,62	-0,75
INVESTMENT AND FINANCING ACTIVITY TOTAL	-152,62	34,38
SURPLUS-/OPERATING DEFICIT	-28 189,34	-22 176,08
SURPLUS (-DEFICIT) FOR THE FINANCIAL YEAR	-28 189,34	-22 176,08

Final income statement, detailed accounts 2019

	Realised 2019	% of budget	difference to budget in €	Budget 2019 approved Bremen	Realized 2018
INCOME STATEMENT					
INCOME					
Membership fees					
Membership fees total	143 028 €	100 %	428 €	142 600 €	144 823 €
Publishing					
Sales of magazines	60 €	100 %	0 €	60 €	60 €
Advertisement income	3 400 €	47 %	-3 800 €	7 200 €	7 000 €
Sales of publications	1 322 €	551 %	1 082 €	240 €	77 €
Other publication income	179 €		179 €	0 €	213 €
Publishing total	4 961 €	66 %	-2 539 €	7 500 €	7 350 €
Events					
Travelling and meeting income	250 €		250 €	0 €	400 €
Conference income	14 083 €	119 %	2 283 €	11 800 €	3 750 €
Events total	14 333 €	121 %	2 533 €	11 800 €	4 150 €
Other					
Debited salaries	240 €		240 €		
Grant contributions	4 160 €	100 %	0 €	4 160 €	3 000 €
Project income	0 €		0 €	0 €	0 €
Interest income	0 €		0 €	0 €	0 €
Other income (SG contributions)	86 000 €	100 %	0 €	86 000 €	-2 €
Other income total	90 400 €	100 %	240 €	90 160 €	3 035 €
INCOME TOTAL	252 722 €	100 %	662 €	252 060 €	159 358 €
EXPENSES					
Staff and external services					
Salaries	-114 704 €	102 %	-1 704 €	-113 000 €	-70 807 €
Auditing	-1 860 €	93 %	140 €	-2 000 €	-1 922 €
Accounting	-8 054 €	124 %	-1 554 €	-6 500 €	-6 244 €
Social security	-933 €	93 %	67 €	-1 000 €	-440 €
Pension funds	-20 003 €	99 %	297 €	-20 300 €	-9 465 €
Insurances required by law	-1 048 €	87 %	152 €	-1 200 €	-650 €
Healthcare	-882 €	63 %	518 €	-1 400 €	-540 €
Other social costs	-270 €	45 %	330 €	-600 €	-275 €
Training	-500 €	100 %	0 €	-500 €	-250 €
Staff and external services total	-148 253 €	101 %	-1 753 €	-146 500 €	-90 593 €
Facilities and administration					
Rent	-9 881 €	98 %	151 €	-10 032 €	-5 873 €
Cleaning	-89 €	59 %	61 €	-150 €	-138 €
Office equipment	-3 279 €	109 %	-279 €	-3 000 €	-294 €
Office materials	-168 €	84 %	32 €	-200 €	-113 €
Printing and copying	-2 239 €	107 %	-139 €	-2 100 €	-1 403 €
Books and magazines	-80 €	80 %	20 €	-100 €	-40 €
Mailing	-418 €	28 %	1 082 €	-1 500 €	-1 189 €
Phone and internet	-1 586 €	79 %	414 €	-2 000 €	-782 €
IT and maintenance	-3 463 €	115 %	-463 €	-3 000 €	-1 133 €
Office catering and staff occasions	-72 €	36 %	128 €	-200 €	-127 €
Other insurances	-1 586 €	79 %	414 €	-2 000 €	-1 305 €
Other costs	-164 €	52 %	154 €	-318 €	-453 €
Facilities and administration total	-23 026 €	94 %	1 574 €	-24 600 €	-12 849 €

Travelling					
Domestic travelling and accommodation	-1 782 €	59 %	1 218 €	-3 000 €	-2 008 €
Domestic allowances	-575 €	29 %	1 426 €	-2 000 €	-580 €
Foreign allowances	-6 118 €	122 %	-1 118 €	-5 000 €	-1 972 €
Mileage allowances	-348 €	35 %	652 €	-1 000 €	-1 583 €
Secretariat foreign travelling and accommodation	-19 745 €	132 %	-4 745 €	-15 000 €	-4 511 €
EB travelling and accommodation	-4 284 €	107 %	-284 €	-4 000 €	-4 420 €
SAB travelling and accommodation	-7 266 €	104 %	-266 €	-7 000 €	-12 203 €
Meeting costs/room rents	-3 516 €	78 %	985 €	-4 500 €	-3 816 €
Representation / catering	-1 204 €	120 %	-204 €	-1 000 €	-1 710 €
Registration fees	-1 136 €	114 %	-136 €	-1 000 €	-1 218 €
Convention travelling (new account)	-3 405 €	68 %	1 595 €	-5 000 €	-2 678 €
Tropical peatlands (new account)	0 €		0 €	0 €	-837 €
Other travelling costs (realised incl. conv + asia)*	-3 410 €	341 %	-2 410 €	-1 000 €	0 €
Travelling total	-52 788 €	107 %	-3 288 €	-49 500 €	-37 537 €
Publishing					
Online journal Mires and Peat	-5 000 €	100 %	0 €	-5 000 €	-6 224 €
Proofreading + translations	-617 €	123 %	-117 €	-500 €	-1 020 €
Other publication costs	-48 €	48 %	52 €	-100 €	0 €
Website and email	-22 192 €	89 %	2 808 €	-25 000 €	-907 €
Book scanning	0 €	0 %	100 €	-100 €	0 €
Publishing total	-27 857 €	91 %	2 843 €	-30 700 €	-8 151 €
Other					
Other costs	-1 860 €	2067 %	-1 770 €	-90 €	-600 €
Project expenses (to be decided/allocated)	0 €	0 %	7 140 €	-7 140 €	
Peat Project 2.2 (Growing Media)			0 €		-7 502 €
Peat Project 2.3 (Peat Supply)	-6 000 €		-6 000 €	0 €	-7 140 €
Conference expenses	-13 110 €	101 %	-110 €	-13 000 €	-10 296 €
Allan Robertson Grants	-5 000 €	100 %	0 €	-5 000 €	-4 000 €
Marketing	-376 €	188 %	-176 €	-200 €	-190 €
Membership fees	-220 €	169 %	-90 €	-130 €	-84 €
Others total	-26 566 €	104 %	-1 006 €	-25 560 €	-29 812 €
Financial					
Credit losses**	-812 €	27 %	2 188 €	-3 000 €	-1 155 €
Depreciations	-301 €	100 %	-1 €	-300 €	-602 €
Banking fees	-784 €	112 %	-84 €	-700 €	-700 €
Webshop/credit card fees	-371 €	186 %	-171 €	-200 €	-133 €
Interest expenses	-3 €		-3 €	0 €	-1 €
Other financial expenses	-149 €		-149 €	0 €	0 €
Financial total	-2 421 €	58 %	1 779 €	-4 200 €	-2 592 €
EXPENSES TOTAL	-280 911 €	100 %	149 €	-281 060 €	-181 534 €
SURPLUS/DEFICIT FOR THE FINANCIAL YEAR	-28 189 €	97 %	811 €	-29 000 €	-22 176 €

3 x 27,000 = 81,000

Surplus of 2017 to used over the years 2018-2020.

Allowed deficit 29K for each 2019 and 2020, as 27K deficit not fully "used" in 2018.

**Credit losses according to unpaid invoices

*new accounts

1074181-4

Notes on the financial statements

Notes on the preparation of the financial statements

The financial statement has been prepared by using the valuation and sequencing presumption of principles and procedures in accordance with the Accounting Ordinance for small and micro-sized enterprises.

Information Concerning the Nature and Business Purpose of the Essential Off-Balance Sheet Arrangements and the Total Amount of Financial Commitments

	31.12.2019	31.12.2018
Rent liabilities	2 414,16	1 344,00

Notes on employees and members of governing bodies

	31.12.2019	31.12.2018
Average number of employees per annum	2	1,6

Notes on capital and reserves

	31.12.2019	31.12.2018
Retained surplus	207 943,18	230 119,26
Surplus (-deficit) for the financial year	-28 189,34	-22 176,08
Capital and reserves	179 753,84	207 943,18

1074181-4

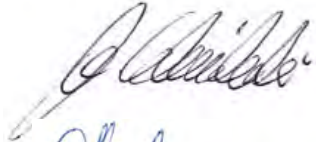
Total income

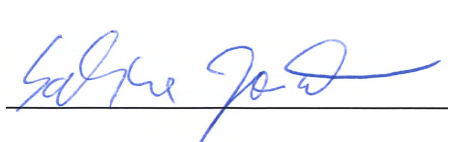
	31.12.2019	31.12.2018
Total income	252 721,71	159 358,19
Total expenditure	-280 609,85	-180 931,87
Depreciation	-301,20	-602,40
Surplus (-deficit) for the financial year	-28 189,34	-22 176,08

1074181-4

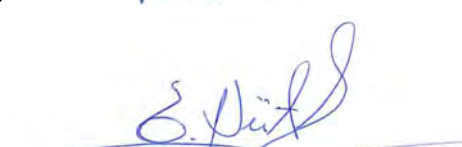
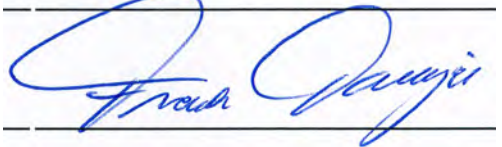
Date and signatures


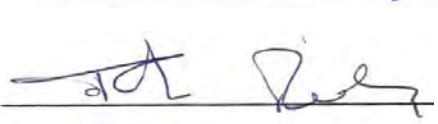
Jyväskylä, 27 March 2020 (online meeting)

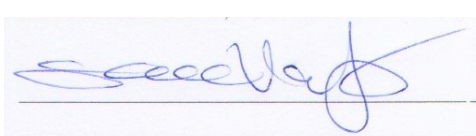

Gerald Schmilewski 

Sabine Jordan 

Donal Clarke 

Erki Niitlaan  Frank Tamminga 

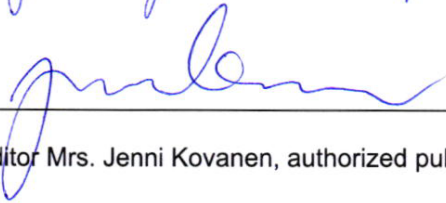
Paul Short  Jack Rieley 

Samu Valpola  Guus van Berckel 

Lulie Melling 

Auditor's note

Auditor report has been issued today.

Jyväskylä 24. April 2020

Auditor Mrs. Jenni Kovanen, authorized public accountant

1074181-4

List of accounting records and materials

Accounting records and materials and method of preserving

Financial statement

Financial statement	Separately bound
Balance sheet specifications	Separately bound

Chart of accounts and balance list

Account-specific income statement	Digital archive
Account-specific balance sheet	Digital archive
Account-specific balance sheet	Digital archive

Accounting records

Accounting journal	Digital archive
General ledger	Digital archive
Accounts receivable	Digital archive
Accounts payable	Digital archive
Payroll accounting	Digital archive
Salary/wage ledger	Digital archive

Receipts

Bank statements	Digital archive
Sales invoices	Digital archive
Purchase invoices	Digital archive
Salary statements and reports	Digital archive
Memo vouchers	Digital archive
Kausiveroilmoitukset	Digital archive
Note vouchers	Digital archive

All material is digitally archived. Backup files are archived on CD-ROM.

AUDITOR'S REPORT (Translation of the Finnish original)

To the Annual General Meeting of International Peatland Society

Report on the Audit of the Financial Statements

Opinion

I have audited the financial statements of International Peatland Society (business identity code 1074181-4) for the year ended 31 December 2019. The financial statements comprise the balance sheet, income statement and notes.

In my opinion, the financial statements give a true and fair view of the society's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Basis for Opinion

I conducted my audit in accordance with good auditing practice in Finland. My responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of Financial Statements section of my report. I am independent of the society in accordance with the ethical requirements that are applicable in Finland and are relevant to my audit, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of the Board of Directors (Executive Board)

The Board of Directors is responsible for the preparation of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors is also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the society's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the society or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the society's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the society's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the society to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Other reporting requirements

Other information

The Board of Directors is responsible for the other information. The other information comprises the report of the Board of Directors. My opinion on the financial statements does not cover the other information.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated. My responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In my opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work I have performed, I conclude that there is a material misstatement of the report of the Board of Directors, I am required to report that fact. I have nothing to report in this regard.

Jyväskylä, 24th April 2019


Jenni Kovanen
APA

IPS Commission Reports 2019



Peatlands and Economy

Chair: Ingrida Krigere, Vice-chairs: Maurice Doyon, Meng Xianmin

In 2019 there were several events in which we participated and represented the IPS:

- 1) 2019 - International Peat Symposium in Qingdao, China.
- 2) October 2019 - Discussion on the topical and potential role of peatlands in the implementation of climate policy in Riga.
Participants from: Latvia, Estonia, Germany and Finland.
- 3) December 2019 - Peat Association Re-establishment Meeting in Ukraine
(The situation in the country is changing; peat mining companies were state-owned and are now privatized; investors are being sought; the land is being privatized).
- 4) 2020 - Meeting with the members of the European Commission.
Green Deal and the role of peat for horticulture. Peat extraction and peat use in Europe.
- 5) 2020 - Contribution to the IPC 2020 – participation in the International Scientific Committee of the IPC2020 (postponed to 2021).

Possibilities and Conclusion:

- Peat extraction is moving from the EU to the East (Russia, Belarus) – The EU will lose the industry, peat will be imported from East, the amount of GHG emissions in the world will remain.
- There is no alternative to peat in growing media, but there is a clear intention to ban our peat.
- It is especially important to discuss the difference between peat for horticulture (food, greenery, tree seedlings) and peat for energy.

Work of the expert groups

1) Expert Group - Peatlands for agriculture

Coordinator of the expert group, Dace Siliņa left this position and we are looking for a new coordinator. (recruited in 2020)

The expert group currently has nine experts from Latvia, Lithuania, Belarus, Japan, Malaysia, the UK, Sweden and Indonesia.

The main tasks of the expert group have been identified:

- To increase the number of members from different countries.
- To create a unified database (networking) on the research / experiments conducted on the use of peat for the production of agricultural products (cultivation of berries and other agricultural plants, including sphagnum).

- To participate in research projects on issues of agricultural crop production, lectures in various study courses, training, etc.
- To promote scientific research into bog and peat resources and the cultivation (development) and approbation of new products.
- To promote awareness of the special circumstances and characteristics of agriculture on peatlands in different geographical areas.

Main challenge of the group – the effect of climate on peat organic soils.

2) Expert Group - Peatlands for forestry

Coordinator: Sakari Sarkkola

The expert group currently has 17 experts from Finland, Sweden, the UK, Canada, the USA, Latvia and Ireland.

Ideas and activities in 2019-2020

- Approximately 15 million ha of peatlands have been drained for forestry, mainly in the Northern hemisphere, one third of this area is located in Finland.
- Extensive forestry also carried out on pristine peatlands, e.g., in Canada (black spruce).
- The timber resources and cutting opportunities are larger than ever before on (drained) peatlands.
- However, at the same time, significant challenges have emerged:
 - On many sites, especially nutrient-rich productive sites, the peat layer is losing carbon and nutrients (also boreal sites).
 - The cost structure of silviculture is substantial, encompassing harvesting, regeneration and ditch network maintenance.
 - General acceptability of the intensive economical use of peatlands is decreasing.

Vision of the expert group: promoting rational discussion as well as information exchange for the responsible management of peatland forests globally.

- Three joint formal discussions conducted via Skype and email in 2019 (among others preparation for the Tallinn Congress; encouraging the members to submit abstracts; joint abstracts prepared within smaller groups of members).
- Most of the group members know each other well and are already in contact. However, the location of members is widespread and the organization of meetings in a location accessible to all, has been challenging.
- Next meeting planned in Tallinn (postponed to 2021). Skype-meeting also optional.
- A symposium concerning peatland forestry and other management issues is planned for 2021 (possibly in Finland). Preliminary planning has started. A funding application will be made in 2020.
- A new textbook project (peatland forestry) has been launched in Finland (initially in Finnish, promoter J. Päivänen).

3) Expert Group - Peat for growing media and energy

Coordinator - Hannu Salo

Activities of the group 2019:

- Remote networking & exchange of ideas, especially related to the gathering and interpreting of the peat statistics in the Spring
- Utilizing the EG status when contacting various stakeholders both nationally and internationally, Expert Group - “Peat for growing media”.

At the end of 2019, the decision was taken to rename the expert group; the new name of the group is **Peat for growing media** and from 2020, the **coordinator for the expert group will be Nina Kinnunen**.

The expert group currently has 12 experts.

Activities carried out in 2019:

- Recruiting new expert members to the team.
- In the first meeting, the role of the group was defined.
 - This expert group will focus on the quality of peat, sphagnum moss and paludicultural biomass for growing media, including or comparing different constituents with peat.
 - The group will also consider the possibilities of the usage of side streams in growing media.
 - Experts will take sustainability aspects into account wherever possible.
 - Experts will act as catalysts for interesting studies on sustainability and peat, and will promote sustainable peat production and after life on peat bogs.

Tasks for the Commission *Peatlands and Economy* for following year(s):

- To activate experts and expert groups.
- To increase the number of experts from different countries in the expert groups.
- Joint Skype/phone meetings (at least one meeting every two months).
- To create a unified database on the research in each expert group.
(collect information on all projects by expert group field (by country) completed in the last three years, or which are in progress).
- To promote joint projects for experts.
- To cooperate with other commissions in order:
 - to collect different statistics data, required for the Society.
 - to work on GHG and other topics relating to climate.

Peatlands and Environment

Introduction

2019 was another eventful year for the IPS and the Commission Peatlands and Environment. The year started again in early February, with a **meeting of SAB**, chairs of all Commissions and the coordinators of most of the Expert Groups – this time in Tallinn. According to the IPC 2020 in Tallinn (postponed to 2021), the congress venue was visited and the conference structure was explained by the organization team.

Another important topic discussed was the idea of a **Peat Concept, 2050**. The idea was initiated by Commission 2 and was put into practice by the Secretariat during the year. The first IPS workshop was held at the end of August in Finland (Helsinki) and a second, with industry representatives was held in Palanga at the beginning of September within the framework of the Baltic Peat Producers Forum.

In May, the **Annual General Meeting of the IPS** was held at a symposium in Bremen, which was organized together with the DGMT, the IVG and the German Peat Producers Association. The topic of the meeting covered various raw materials for growing media with regard to availability and suitability.



Figure 1: Gala Dinner on board the Alexander von Humboldt (photograph: B. Hofer)

Pete Whittington, coordinator of the Expert Group Restoration, hosted a special peatland ecohydrology session at the IUGG (international Union of Geodesy and Geophysics) conference in Montreal in July.

Description of his session:

Peatlands cover about 15% of Canada's land surface and globally store roughly a third of the terrestrial soil carbon. A greater understanding of peatland ecohydrological and biogeochemical processes is critical to understanding the role these systems may play in a warming climate. These peatland processes rely on complex interactions between hydrological, biological and chemical processes; yet there remains a dearth of knowledge of the interactions of these processes in peatlands. The goal of the symposium is to bring together peatland scientists from across the world to share the most current knowledge about peatlands. We welcome all studies involving the hydrology, ecology, biogeochemistry, or combinations therefore, of peatlands in undisturbed and disturbed, (e.g., drainage, resource extraction) systems, as well as laboratory or theoretical, (e.g., modelling) experiments.

The first **International Peat Symposium held in Qingdao, China**, from 16th to 19th September was visited by Bernd Hofer who gave a presentation on the conflict between peat use in gardening and climate protection. Lectures, as well as excursions, gave a particularly good impression of the incredible dimensions and breath-taking dynamics of Chinese horticulture and the challenges and opportunities for the global substrate industry.



Figure 2: Greenhouses on the horizon near Qingzhou (photograph: B. Hofer)

A further **one-day workshop in collaboration with the IVG, the DGMT and the IPS** took place in Oldenburg on 21st November. Different methods of peatland restoration from Schleswig-Holstein, Brandenburg and Lower Saxony were presented. Of particular interest was the excursion to the BfN research project, OptiMoor (<https://optimoor.jimdofree.com/>), in which different remediation approaches were investigated with regard to their greenhouse gas emissions, vegetation development and fauna.



Figure 3: Aerial photograph of the OptiMoor research project (ortho photograph: Hofer and Pautz GbR)

Further important activities of Commission Peatlands and Environment:

- **Maria Strack** (vice chair of Commission 2) is currently working closely with the IPS Secretariat on the initial stages of updating the “Peatlands and Climate Change” book, originally published in 2008. This will be a complete update of the knowledge of the interaction of peatlands with the climate system, and discussions are ongoing with the Executive Board and original lead authors on the content that should be included. The project will be announced at the IPC meeting in Estonia, with the goal of completing the new edition by mid-2021.
- In November 2019, the 2nd International Conference on Natural Resources and Environmental Conservation took place in Bogor, West Java, Indonesia, organized by **Budi Indra Setiawa**, vice chair of Commission 2, who also participated in the conference. Lulie Melling from the Executive Board of the IPS was invited as one of the speakers.

Note for 2020:

Quebec City, Canada will host the **Quebec RE³** (Reclaim, Restore, Rewild) between 4th and 7th June 2020 (postponed to 2021). This is a joint meeting of the Society for Ecological Restoration, Society of Wetland Scientists and Canadian Land Reclamation Association. Many members of the commission have been active in planning the meeting and are leading symposia on topics related to peatland management, restoration, biodiversity, carbon exchange and response to disturbance.

Staff of Commission Peatlands and Environment

Maria Strack from Canada (vice chair) and Budi Indra Setiawan from Indonesia (2nd vice chair) will continue in their positions from the most important areas of the peat-world.

We have changes in the positions of the coordinators of two expert groups (EG):

- **EG Peatlands and Climate Change** **Gerald Jurasinski, Germany**
- **EG Restoration of Peatlands** **Pete Whittington, Canada**

Lydia Cole continues as coordinator of:

- **EG Peatlands and Biodiversity** **Lydia Cole, UK**

And we welcome a new Expert Group in our Commission:

- **EG Tropical Peatlands Round Table** **Jack Rieley, UK**

Lahiru Wijedasa will support him as secretary and they will both provide general support to the Commission.

Bernd Hofer

Chair of Commission Peatlands and Environment

Peatlands and Society

It has been an interesting year in the IPS. The year started in early February with a **meeting of the SAB**, chairs of all Commissions and the coordinators of most expert groups in Tallinn.

In May, the **Annual General Meeting of the IPS** was held at a symposium in Bremen, which was organized together with the DGMT, the IVG and the German Peat Producers Association. The topics of the meeting covered various raw materials for growing media with regard to availability and suitability.

In August, the workshop “IPS Concept 2050” was arranged at the Heureka Science Centre in Finland, with a focus on growing media: **The Future of Peat Based Growing Media.**

The first **International Peat Symposium was held in Qingdao, China**, from 16th to 19th September. All three commission chairs attended the symposium and gave keynote presentations. Marie Kofod-Hansen gave a presentation on the responsible management of peatlands and livelihood opportunities, and also moderated a seminar focusing on the policy and management of peatlands.



Figure: In China there are approximately 640 companies working with peat in some way, and more new companies are expected, considering the amount of peat China is going to use in the horticulture industry. Photos: Marie Kofod-Hansen and Bernd Hofer.

Web

Until the new IPS website was launched, Commission Peatlands and Society had its own website. In these pages there was a lot of useful information about the commission, and also regarding literature, art and history connected to peat and peatlands. We are currently working to update these pages and to add new material to the general IPS website.

Staff of Commission Peatlands and Society

- **Kirsi Lauren, Finland (vice chair) and Rachel Carmenta, UK (2nd vice chair)**

The commission has four expert groups:

- **EG Peatland Conventions and International Affairs**

Jack Rieley, UK

- **EG Peatlands and people, health and local livelihoods**

Dian Novarina, Indonesia

We have changes in the positions of coordinators of two expert groups (EG):

- **EG Cultural aspects**

Anne Jelle Schilstra, The Netherlands has retired and Ilze Ozola, Latvia, is now in charge.

- **EG Peatlands Education, Communication and Publicity**

Vacant. Please contact Marie Kofod-Hansen or Gilbert Ludwig if you want more information about this position (Ilze Ozola recruited in 2020).

Reports of activities connected to Commission Peatlands and Society:

Kirsi Lauren, First chair

1. Organizing a national *Mire - Writing and Photo Campaign* [Suo - kirjoitus- ja kuvakeruu] here in Finland between 1st September 2018 and 28th February 2019.

The organizing partners were the Finnish Peatland Society, the Network of Environmental Humanities, Metsähallitus and the Finnish Literature Society. Please see the attachment (unfortunately it is in Finnish).

The results of the data were good:

- 78 answers (writings)
- 280 pages of text
- 137 photos

These form interesting and valuable material for qualitative research.

2. In September 2019, I applied for funding for a multidisciplinary research project.

I was awarded funding for a *Mire Trend* research project (full name *Nudity, Puddles and Critical Comments: Mire trend as Changing the Cultural Heritage [Alastomuutta, allikoita ja kannanottoa: Suotrendi kulttuuriperintöä muokkaamassa.]* Funded by the Kone Foundation for the period 2020–2022 (326 000€).

The project involves working at the School of Humanities, University of Eastern Finland. We started at the beginning of this year. Please see the short description: <https://uefconnect.uef.fi/en/group/mire-trend-research-project/>

Report from Rachel Carmenta (2nd vice chair)

Some proposals have been funded, including one focusing on the significant value that people derive from UK peatlands in Yorkshire, which is in collaboration with Exeter University and starts this summer. A second large proposal has been submitted and if funded, will examine the social and ecological impact on and the solutions for peat fires in Indonesia. It is a large project in conjunction with the universities of Leicester, Exeter and Leeds, and a number of Indonesian institutions and partners.

Some new publications are available:

Characterizing policy responses to complex socio-ecological problems: 60 fire management interventions in Indonesian peatlands

<https://www.sciencedirect.com/science/article/pii/S0959378019302560#!>

Abstract

The governance of complex socio-ecological problems such as climate change, deforestation, and chronic wildfires is becoming “messier”. Theory and case study evidence suggest that “messy” institutional characteristics like non- government involvement and multi-level decision-making can improve social and environmental outcomes. However, these characteristics still lack systematic documentation, and there have been few efforts to systematically characterize and compare the interventions associated with them. We examined 60 fire management interventions (FMI) undertaken between 1999 and 2016 in response to Indonesia’s disastrous peatland fires. We documented their institutional characteristics, (i.e., lead sector, multi-level character) and

compared their design across institutional types, focusing on design attributes associated with performance such as targeting high-risk soil types, landholders and time periods, and the use and design of incentives. We found gaps between scientific recommendations and practice when it came to intervention targeting. However, industry FMI were more likely to employ nuanced targeting among landholders. Government, industry and civil society adopted differing intervention strategies, including notable differences in the design of incentives. These findings provide the groundwork for research comparing intervention outcomes between institutional types. They also highlight the need for further stock-taking to inform research in these areas.

Academic conferences

During the World Biodiversity Forum (Davos) I will give a presentation that focuses on the health implications of the Indonesian peatland fires and a review of the evidence, using the UN Declaration of BioEthics to expose the humanitarian harms of peat fires.

Public engagement

Including a talk at the Cambridge Science Festival: Smoke in the lungs of the Earth.

Report from one ongoing project in the expert group of Peatlands Education, Communication and Publicity

WikiPeat Project

The arguments, that describe the relevance of Wikipedia for understanding all aspects of peatlands protection and peatland use in the preceding Annual Report, are still valid. Individuals and some National Commissions have also been approached this year, but I would still like to see more reactions in this current issue.

Wikipedia's statistical data tells us that on average, the word "peat" is searched for on a daily basis around 1200 times globally. This includes nights, weekends and holidays. Other languages probably have an equivalent number of searches., WikiPeat's project leader assumes, that among the visitors, are also laymen involved in decision making about peatlands, at a local, national and international level. They should see good quality information! Since mistakes, outdated scientific content and also nonsense can sometimes be found, it is therefore considered to be the duty of IPS's professionals to improve Wikipedia's content with regard to peatlands and peat, as well as economic, ecological and social issues. Of course, lack of time is hampering our good intentions. Via the WikiPeat project, technical help can be provided so that thresholds can be decreased or even removed! In many languages! As the "view history" link in the Wikipedia pages shows, many people are (anonymously) active across Wikipedia: join the crowd!

Project Leader: Anne Jelle Schilstra

Marie Kofod-Hansen

Chair

IPS National Committee Reports 2019



- 1 Finland
- 2 Germany
- 4 Latvia
- 6 Lithuania
- 9 Malaysia
- 11 Netherlands
- 11 Sweden
- 13 United Kingdom

(8 of 16 received)

Finland

The year 2019 marked the 70th anniversary of the Finnish Peatland Society and the usual activities, seminars and excursion took place. Two seminars were organized focusing on the present and future of peatland research and sustainable use: one seminar in April alongside the spring meeting and the other in November alongside the autumn meeting. Two new honorary members, Dr. Leila Korpela and Dr. Ahti Mäkinen, were invited to the spring meeting. The 70th jubilee excursion focused on paludiculture in Northern Germany and was hosted by Prof. Hans Joosten and Greta Gaudig from Greifswald Mire Centre. In the spring, a peatland photography competition was announced and at the end of the year the best pictures were printed in a 2020 wall calendar. The 70th volume of the journal *Suo – Mires and Peat* was published. The annual meeting of the IPS took place in Bremen in May, where Mr. Hannu Salo represented the Finnish Peatland Society.

Meetings and Seminars

Meetings and seminars were held at the House of Science and Letters in Helsinki. The spring meeting and seminar were held on 1st April and the autumn meeting and seminar on 27th November.

The topic of the spring seminar was “70 years of timely peatland research” where recently-graduated Dr. Maija Lampela (PhD 2018), and the new honorary members Dr. Leila Korpela and Dr. Ahti Mäkinen, presented their peatland-related research topics. The new Secretary General to the IPS, Dr. Gilbert Ludwig, also introduced timely IPS activities to the members of Finnish National Committee.

The topic of the autumn seminar was “Sustainable use of peatlands in the future”. Dr. Paavo Ojanen from the University of Helsinki talked about the climate impacts of forestry-drained peatlands. Prof. Kristiina Regina from the Natural Resources Institute Finland (LUKE), discussed whether croplands on peat could be farmed in a climate-friendly manner. Ms. Anna-Riikka Ihantola from Metsähallitus presented her work on peatland restoration with an example of Polvela fen that was restored from a cropland. Dr. Gilbert Ludwig from IPS gave a presentation on the use of peatlands in the pressure of global decision-making and lobbying. A general discussion was held after the presentations. About 35 people attended the seminar. Dr. Anna Laine-Petäjäkangas launched the calendars for the year 2020.

Preparations were made for the third National Peatland Day to be held on 31st January 2020 at the House of Science and Letters in Helsinki. The core organizing team consisted of Dr. Anna Laine-Petäjäkangas, Dr. Maija Lampela and Dr. Markku Koskinen. The theme will be “Peatlands in a changing world”.

Excursion

The yearly excursion took place on 15-20th September and this year the expedition headed to Northern Germany visiting paludiculture sites. The excursion was organized jointly with the students and teachers of Forest Sciences at the University of Helsinki and had 23 participants and 10 guides. The excursion consisted of two seminars on the ferry and an intensive two-day programme in Germany. During the trip, the local guides led the group from Sphagnum farming at Hankhauser Moor in the west via several field sites to Greifswald Mire Centre at the University of Greifswald in the east. The detailed travel diary will be published in *Suo – Mires and Peat*.

Germany

Name, organization and contact details of reporting person	Andreas Bauerochse & Sabine Jordan SLU, sabine.jordan@slu.se
National Committee / Commission Chair , name and contact details	Deutsche Gesellschaft für Moor- und Torfkunde (DGMT) e.V.; German Peat and Peatland Society Andreas Bauerochse, bauerochse@dgmtev.de
National Committee / Commission Secretary , name and contact details	Jörn Kasch, kasch@dgmtev.de
Current membership fees	individual: 40 € student: 10 € corporate: institute: 150 € NGOs: other categories:
Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	individual: 318 student: corporate: 63 institute: NGOs: honorary: in total: 381

<p>Main activities (five short bullet points, summary)</p>	<ul style="list-style-type: none"> • Workshop “DGMT 21”: strategy meeting on the prospective work, organization and focus of the society, Hannover • 18th Seminar on “Peatlands and Peat” as a training course for laypeople, employees from the peat industry, administrations, NGO’s, and students, Zeven • Workshop on the ‘Loss and Growth of Peatlands: an attempt at a methodological discussion’, Humboldt-Universität zu Berlin • Annual Expert Seminar ‘Conservation of Peatlands in Lower Saxony: an exchange of experiences’, in collaboration with the Alfred Toepfer Academy for Nature Conservation (NNA) of Lower Saxony, Camp Reinsehlen • Annual assembly and excursions of the German Peat Society, Rendsburg • “<i>Sphagnum</i> Moss Identification Course”; MoorInformationsZentrum Ahlenmoor in collaboration with the DGMT • Joint meeting of the IVG and DGMT on the ‘Restoration of Peatlands in Germany’ with an excursion to Hankhauser Moor, Oldenburg
<p>Events and meetings including policy, advocacy and convention work (bullet points or full text)</p>	<p>Meetings and seminars in which DGMT members have been involved:</p> <ul style="list-style-type: none"> • Lower Saxony Peat Replacement Forum, Hannover • Sphagnum Farming Workshop, Swedish University of Agricultural Sciences, Uppsala • ‘Peatland-Dialogue’ conducted by the Lower Saxony Ministry of Environment, Energy, Construction and Climate Protection, Hannover • ‘Heimatbund’ of Lower Saxony, Hannover • Mire Protection Strategy of the Federal Government, Bonn • NABU local branch, Großdittmannsdorf: information meeting due to gravel mining in the Radeburg-Laußnitzer Heide and focusing on the ‘Treasures of the Radeburg-Laußnitzer Heide: animals and plants of the forest bogs, springs and lowland pine spruce forests’, Berbisdorf
<p>Publications (bullet points or full text)</p>	<ul style="list-style-type: none"> • Reports about workshops, events, etc. can be found in TELMA 49, our national journal, published annually with articles and reports related to peat, mires and peatlands, in Peatlands International and at www.dgmtev.de • More than 200 articles published in previous TELMAs are now online: https://www.fidgeo.de/telmaonline-2/
<p>Education (bullet points or full text)</p>	<ul style="list-style-type: none"> • The DGMT awarded 250 € to Ann Christin Sieber for an excellent master’s thesis on ‘Subfossil pines as archives of Holocene bog development’. The winners at the poster presentation during the annual assembly were awarded 100 €, 75 € and 50 €, respectively: ‘BEWAMO – An assessment tool for categories of protection worthiness and for remote sensing-based monitoring of agricultural peatlands’ (A. Herrmann et al.), ‘Assessment of the congestion effect of dams for the rewetting of raised bogs in Schleswig-Holstein on the basis of physical soil parameters’ (A. Mordhorst et al.) and ‘Preparation for Germany wide peatland monitoring’ (S. Frank et al.)
<p>New member campaigns and marketing((bullet points or full text)</p>	

Other activities (bullet points or full text)	<ul style="list-style-type: none"> • Dr. Gerfried Caspers received the Honorary Membership of the IPS
Cooperation activities with the IPS (bullet points or full text)	<ul style="list-style-type: none"> • IPS Annual Convention in collaboration with the DGMT on “Economy meets Environment and Society – Future use of Peat and Substitutes in Horticulture“, Bremen
Plans for next year (bullet points or full text)	<ul style="list-style-type: none"> • 50 years of the DGMT e.V. with special events and publications • 19th seminar on “Peatlands and Peat“, Zeven • Bog excursion to Estonia • ‘Site assessment of agriculturally used peatlands’ • Seminar on Peatland Archaeology • Seminar on the ‘Exchange of Experience in Nature Protection’ • ‘Stauhaltung in Fen Meadows’, Lübben
What do you like about the IPS?	<ul style="list-style-type: none"> • Information accessible to members via different channels • The good work of the recently appointed Secretary General
What at the IPS can be improved?	

Latvia

Name, organization and contact details of reporting person	Latvian Peat Association
National Committee / Commission Chair , name and contact details	Ingrida Krigere ingrida@peat.lv +37229106008
National Committee / Commission Secretary , name and contact details	
Current membership fees	Other categories: Peat producers: count by turnover and license area Associated members: 711 EUR Scientific members: 30 EUR
Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	Peat producers: 22 Associated: 9 Honorary: 11 Scientific members: 2

Main activities (five short bullet points, summary)	<ul style="list-style-type: none"> • work with policy documents – Peat strategy, National development plan 2020-2027, National Energy and Climate plan • work with Regulatory documents • LIFE Restore project • stimulation of industry-specific research
Events and meetings (bullet points or full text)	<ul style="list-style-type: none"> - <i>24-25th May 2019</i> Participation in the event “Forest days” - exhibition of peat resources and products. - <i>13-14th June 2019</i> Project LIFE REstore International Conference "Sustainable management of degraded peatlands and climate change mitigation". Conference took place at the Academic Centre for Natural Sciences of the University of Latvia. At the conference there were 159 participants and event was viewed by 998 persons online. The goal of the conference was to raise awareness of peatlands’ role in climate change mitigation. Topics of the conference included: <ul style="list-style-type: none"> - The influence of differently managed peatlands on climate change mitigation; - Development of national GHG emission factors; - After-use of peatlands affected by peat extraction; recommendations for their sustainable management; - Inclusion of assessment of ecosystem services in the planning of future use of degraded peatlands. - <i>10th September 2019</i> Seminar and field trip “Fire safety in peatlands and peat extraction sites”. - <i>15-16th October 2019</i> Discussion on the topical and potential role of peatlands in implementation of the climate policy targets (Latvia, Estonia, Finland, Germany).
Publications (bullet points or full text)	Monograph: Priede A., Gancone A. (eds.) 2019. Sustainable and responsible after-use of peat extraction areas. Baltijas krasti, Riga.
Policy, advocacy and convention work (bullet points or full text)	
Education (bullet points or full text)	Cooperation with universities in projects, lectures. Lectures in Latvian University, <i>Latvia University of Life Sciences and Technologies</i> .

New member campaigns and marketing (bullet points or full text)	
Other activities (bullet points or full text)	Work on new projects.
Cooperation activities with the IPS (bullet points or full text)	
Plans for next year (bullet points or full text)	To organize Baltic Peat Producers Forum 9-11 th September 2020. Continue international discussion of the climate policy targets.
What do you like about the IPS?	
What can be improved at the IPS?	

Lithuania

Name, organization and contact details of reporting person	Oksana Strasiuskiene Lithuanian Peat Producers Association Administrator Telephone +37061540442, email info@peat.lt
National Committee / Commission Chair , name and contact details	Lithuanian Peat Producers Association Mr. Giedrius Kavaliauskas Telephone +37065091112 Email giedrius.kavaliauskas@klasmann-deilmann.com
National Committee / Commission Secretary , name and contact details	Lithuanian Peat Producers Association Oksana Strasiuskiene Telephone +37061540442 Email info@peat.lt
Current membership fees	individual: student: corporate: institute: NGOs: <u>other categories:</u> Membership fee depends on the volume of extraction for peat production companies and it can be from 1,000 € to 10,000 €. The service companies are paying a fixed membership of 1,000 €.

Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	individual: student: corporate: institute: NGOs: honorary: <u>other categories:</u> we have 24 members: 13 peat extraction companies, 6 service companies, 3 scientific members, 2 non-associate members
Main activities (five short bullet points, summary)	<ul style="list-style-type: none"> • Sustainable peat industry • Represent the Association members interest in state authorities and submit proposals • Assist in cooperation with foreign partners on economic and professional issues • Provide consulting on production rationalization and economy development issues • Organize exhibitions, seminars and specialist training on peat production, processing and sales
Events and meetings (bullet points or full text)	<p>The most important event of the year for the peat industry was Baltic Peat Producers Forum 2019. The event was held in the city of Palanga on the 4-6th September 2019.</p> <p>Around 300 participants attended the event. Participants came from different countries and various fields, from peat producers to scientists and students.</p>
Publications (bullet points or full text)	
Policy, advocacy and convention work (bullet points or full text)	<p>Lithuanian Peat Producers Association is a member of IPS, Growing Media Europe, Lithuanian Confederation of Industrialists.</p> <p>Partnership with LITBIOMA (Lithuanian Biomass energy Association), Kaunas University of Technology, LINAVA (Association of Transport Companies) Nature Research Centre and Lithuanian Nature Fund.</p>
Education	
New member campaigns and marketing (bullet points or full text)	<p>Last year, one company joined the Lithuanian Peat Producers Association.</p> <p>Soltera JSC expressed a wish to become a member of the association in the general meeting of members.</p> <p>Soltera JSC is the only company in the Baltic States producing a wide range of perlite products especially for the peat industry.</p>
Other activities (bullet points or full text)	<p>To continue activity in project “LIFE Peat Restore – reduction of CO₂ emissions by restoring degraded peatlands in Northern European Lowland”. LIFE Peat Restore - an EU peatland project funded by LIFE Climate Change Mitigation (2016-2021).</p> <p>Together with nine partners from Poland, Germany and the Baltic states the LIFE Climate Mitigation project “Peat Restore” was established in 2016. Within five years the project aims to rewet degraded peatlands in the partner</p>

	<p>countries, covering an area of 5,300 hectares to restore the natural function as carbon sinks.</p> <p>Project financed by European Commission. Partners and co-financers in Lithuania are the Lithuanian Fund for Nature (LFN), Peat Producers Association (PPA) and the Ministry of the Environment of the Republic of Lithuania.</p> <p>LIFE PEAT RESTORE LIFE15 CCM/DE/000138</p> <p>The project provides for the following research directions indicating climate change: the emission and storage of greenhouse gases, hydrological and flora and fauna research. These studies will allow us to evaluate the effectiveness of the measures taken and to estimate the potential impact of wetland drainage on climate change. The project's experience as well as best practice scenarios to reduce greenhouse gases will be summarized in a guide of rewetting peatlands, which can be used by various stakeholders. Adapted management plans and restoration concepts for each of the project sites will be elaborated to ensure the achievements in the long term.</p> <p>LIFE Aukštumala LIFE12NAT/LT/000965</p> <p>The planting of Sphagnum and restoration of flora in the exhausted part of Aukštumala peatland was initiated by the Lithuanian Fund for Nature. This project is part of the international project "LIFE Peat Restore – reduction of CO₂ emissions by restoring degraded peatlands in Northern European Lowland".</p> <p>In 2019, the first experimental area of 2 ha was developed in Lithuania on the north eastern edge of Aukštumala Peatland. It was done on the initiative of Lithuanian Nature Fund in cooperation with the peat company JSC Klasmann Deilmann Šilutė and Lithuanian Peat Producers Association. The Aukštumala Sphagnum cultivation field with its infrastructure and biodiversity protection area covers an area of 10 ha.</p> <p>Experts investigated the experimental field, the properties of peat, the possibility of supplying the necessary water and they designed a scheme for the construction of a Sphagnum planting field. Qualified employees of JSC Klasmann-Deilmann Šilutė did all necessary work.</p> <p>In September 2019, the two-day work consisted of two steps: collecting of Sphagnum material from damaged and ready-to-use peat fields, and planting in an experimental field. This work was done by volunteers and staff of Klasmann-Deilmann Šilutė. They were not afraid of bad weather and collected the 400 bags of Sphagnum and planted them by hand.</p> <p>After hard work in the field, Nerijus Zableckis (NGO Lithuanian Fund for Nature, national coordinator of project LIFE Peat Restore) and Dr. Jūratė Sendžikaitė (NGO Lithuanian Fund for Nature, the Institute of Botany of the Nature Research) were delighted.</p> <p>Dr. Jūratė Sendžikaitė said: "Sphagnum is spread over two hectares in a specially equipped field for the cultivation of Sphagnum and other raised bogs. If all goes well after five to six years we will have plenty of donor material to restore other parts of the peatland".</p> <p>Short video about work in Aukštumala peatland restoration.</p>
--	--

	https://youtu.be/2aWDjVNHWak
Cooperation activities with the IPS (bullet points or full text)	Peat Producers Association is planning to be active and to take part in IPS events and conferences, to exchange information and to continue cooperation.
Plans for next year (bullet points or full text)	<ul style="list-style-type: none"> • “GROWING MEDIA EUROPE” to continue participation in the activities • To work on validation of the peat loss due to the compression method and to work with “Lithuanian Nature Fund” on this question • To continue to work on abandoned peatlands with the Lithuanian Ministry of Environment • To continue to work with the “LIFE Peat Restore” project
What do you like about the IPS?	
What can be improved at the IPS?	

Malaysia

Name, organization and contact details of reporting person	Jicqueline Ratai Sarawak Tropical Peat Research Institute Tel: +60 82 662491 Fax: +60 82 662497 Email: jicqueline@gmail.com
National Committee / Commission Chair , name and contact details	Dr Lulie Melling Sarawak Tropical Peat Research Institute Tel: +60 82 662491 Fax: +60 82 662497 Email: luliemelling@gmail.com
National Committee / Commission Secretary , name and contact details	Frederick Haili Teck No.386A, Lorong 7, Jalan Semeba, 93250, Kuching, Sarawak Tel: +60 16 – 889 0102 Email: fhteck@gmail.com
Current Membership Fees	Individual Life Member : MYR 1,000 (One-time payment) Individual Ordinary Member : MYR 100 per annum <i>*entrance fee – MYR 20 (One-time payment ONLY)</i> Corporate Life Member : MYR 1,000 per annum Corporate Ordinary Member : MYR 10,000 (One-time payment) <i>*entrance fee – MYR 20 (One-time payment ONLY)</i>

Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	<p>Individual Life Member : 12 Individual Ordinary Member: 18 Corporate Life Member: 1 Corporate Ordinary Member: 4 Total: 35</p>
Main activities (five short bullet points, summary)	<ul style="list-style-type: none"> • AsiaFlux 2020 • MPS 9th Annual General Meeting (AGM) • MPS 23rd & 24th Management Committee Meeting (MCM) • Internship / Student Attachment Programme
Events and meetings (bullet points or full text)	<ul style="list-style-type: none"> • IIASA-ASM Workshop on Haze & Biomass Burning in Asia 2019 <i>(TROPI, 9-10th July 2019)</i> • Soil Science Conference 2019 <i>(Melaka, Malaysia, 16-18th April 2019)</i> • WETSCAPES 2019 <i>(Rostock, Germany, 10-13th September 2019)</i> • ESAFS 2019 <i>(Taiwan, 3rd-7th November 2019)</i>
Publications (bullet points or full text)	
New member campaigns and marketing (bullet points or full text)	
Policy, advocacy and convention work (bullet points or full text)	<ul style="list-style-type: none"> • IIASA-ASM Workshop on Haze & Biomass Burning in Asia 2019 <i>(TROPI, 9-10th July 2019)</i> • ASM Taskforce Meeting on Local and Transboundary Pollution Act Feasibility Study <i>(Academy of Science, Malaysia)</i> • 2nd International Conference on Natural Resources (ICNREC) <i>(Bogor, Indonesia)</i> <i>Title: For Peat's Sake, Keep It Tight and Moist</i> • 4th Jakarta Meeting <i>(Jakarta, Indonesia)</i>
Education (bullet points or full text)	<ul style="list-style-type: none"> • AsiaFlux 2020 Scholarship -AsiaFlux 2020 is offering 15 student grants to students and early career scientists to participate and present their work at the AsiaFlux 2020. • Internship / Student Attachment
Other activities	
Cooperation activities with the IPS (bullet points or full text)	<ul style="list-style-type: none"> • IPS Executive Board Meeting -Dr. Lulie Melling as Executive Board Member

Plans for next year (bullet points or full text)	<ul style="list-style-type: none"> • AsiaFlux 2020 • MPS 10th Annual General Meeting (AGM) • MPS 25th & 26th Management Committee Meeting (MCM) • Internship / Student Attachment Programme
What do you like about the IPS?	<ul style="list-style-type: none"> • IPS brings together peat and peatland experts from different backgrounds – science, NGO and business under one roof, in a worldwide association. • IPS fosters information exchange, education and dialogue through regular conferences, meetings and symposia on all matters related to peat and peatlands.
What can be improved at the IPS?	

The Netherlands

After the successful symposium on the 50th anniversary of the IPS in Rotterdam in the autumn of 2018, the board of the Veengenootschap devoted much of its time to the financial aftermath of this event. The year also saw the shift of the secretariat and treasury from Anne-Jelle Schilstra to Michiel Gerding.

The issue of soil subsidence through oxidation caused by draining peatlands is becoming increasingly problematic. This is especially true for large low-lying areas of fenland in the west of the Netherlands. Rising sea levels, intensive cattle farming and subsidence of peat embankments during hot dry summers, pose huge challenges for water boards and other authorities. The expertise is being gathered into a task force *slappe bodem* (weak soil) coordinated by Deltares, an independent institute for applied research in the field of water and subsurface.

The main event of this year was the presentation of the book on peatlands in the Netherlands. The book was edited by our members André Jansen and Ab Grootjans and has contributions from sixty specialists in peatland ecology, conservation and management. Members of the Veengenootschap participated in the symposium that accompanied the presentation.

The title of the book is *Hoogvenen, landschapsecologie, behoud, beheer, herstel* and is only available in Dutch. (www.noordboek.nl; ISBN 978 90 5615 552 00, 391 p. ill.)

Michiel Gerding

Sweden

Name, organization and contact details of reporting person	Sabine Jordan, SLU, sabine.jordan@slu.se
--	--

National Committee / Commission Chair , name and contact details	TorvForsk (The Swedish Peat Research Foundation) President: Pia Holmberg, pia.holmberg@hasselforsgarden.se CEO: Sylvia Jonsson, sylvia.jonsson@ovikenergi.se
National Committee / Commission Secretary , name and contact details	Ingrid Kyllerstedt, ingrid.kyllerstedt@svensktorv.se Svensk Torv c/o Neova AB Arenavägen 33 121 77 Johanneshov SWEDEN The Swedish Peat Research Foundation (Torv Forsk) as the Swedish National Committee cooperates very narrowly with the Swedish Peat Producers Association (Svensk Torv).
Current membership fees	individual: student: corporate: institute: NGOs: other categories:
Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	individual: student: corporate: 52 institute: NGOs: honorary: other categories:
Main activities (five short bullet points, summary)	<ul style="list-style-type: none"> • Annual meeting in Jönköping, invited speaker: Maureen Kuenen (RPP) • Autumn meeting in Stockholm • Establishment of the working groups peat as growing media, energy peat and law • For more information, please visit our website. www.svensktorv.se
Events and meetings (bullet points or full text)	TorvForsk/Svensk Torv have participated in some 20 seminars, referral seminars, hearings organized by the Government Offices, authorities, Svebio, energy companies, EnergiForsk, SvD Summit, Swedish Enterprise, IVA, the Royal Swedish Forest and Agricultural Academy, Svebio, the Climate Policy Council, Ministry of Finance and others.
Publications (bullet points or full text)	A new information leaflet, Peat Facts, has been prepared in collaboration with all working groups and the Board. This is the basis for the meetings with e.g. the parliament and with the ministries. Peat facts can be found on our website: www.svensktorv.se Benchmarking report about Swedish legislation/obligations for licensing of peat extraction sites against criteria of the RPP-certification-scheme.
Policy, advocacy and convention work (bullet points or full text)	Meetings with politicians, authorities and other organizations: <ul style="list-style-type: none"> • The Swedish Forest Agency • Field seminar for LRF Horticulture (The Federation of Swedish Farmers) and Svenskt Sigill (the leading independent food and flower certification scheme in Sweden) • Centre Party's spokesperson for environmental issues • Parliament, the Environment and Agriculture Committee

	<ul style="list-style-type: none"> Meeting with the Ministry of Finance as a result of the Swedish Tax Agency's decision to tax peat extraction properties as the peat law was abolished. Svensk Torv has challenged the legislation and paid for a legal investigation as today peat is taxed according to the same principle as rock mining. Svensk Torv has requested a review of the law, where peat extraction areas should be handled in the same way as forestry.
Education (bullet points or full text)	<ul style="list-style-type: none"> Sphagnum Farming Seminar in cooperation with SLU, Germany and Finland
New member campaigns and marketing (bullet points or full text)	<ul style="list-style-type: none"> Via communication channels (see below)
Other activities (bullet points or full text)	The magazine Svensk Torv was published in four issues and was sent out as an appendix in the journal <i>Bioenergi</i> , which publishes 6,000 copies and reaches all parliamentary members, marketing and sales managers, project managers, consultants and energy advisers and also Svensk Torv's/Torv Forsk's members. News is also published on our pages on LinkedIn and Facebook.
Cooperation activities with the IPS (bullet points or full text)	
Plans for next year (bullet points or full text)	<ul style="list-style-type: none"> Constructive dialogue with politicians and county governments
What do you like about the IPS?	
What can be improved at the IPS?	

United Kingdom

Name, organization and contact details of reporting person	Professor Jack Rieley Secretary UK Peatland Society Jack.rieley@peatlands.org
National Committee / Commission Chair , name and contact details	Professor Susan Page Chair UK peatland Society Sep5@le.ac.uk
National Committee / Commission Secretary , name	Professor Jack Rieley Secretary UK Peatland Society Jack.rieley@peatlands.org

and contact details	
Current membership fees	individual: student: £25 corporate: £150 institute: £150 NGOs: £150 other categories: none
Number of members (please synchronize list of members & their contact details with the IPS Secretariat)	individual: 19 student: 4 corporate: 5 institute: 2 NGOs: 1 honorary: 3 other categories: Associate Corporate and NGO Members: 15
Main activities (five short bullet points, summary)	<ul style="list-style-type: none"> • Information • Communication • Newsletter
Events and meetings (bullet points or full text)	None
Publications (bullet points or full text)	Peatland Snippets Peatlands International UK Peatland News
Policy, advocacy and convention work (bullet points or full text)	None
Education	None
New member campaigns and marketing (bullet points or full text)	None
Other activities (bullet points or full text)	Participation in UK meetings on peatlands organized by other organizations such as IUCN UK Peatland Programme, Flow Country, and Moors to the Future
Cooperation activities with the IPS (bullet points or full text)	Jack Rieley is active on the IPS Executive Board and two Expert Groups

Plans for next year (bullet points or full text)	To hold one meeting of the UK Peatland Society Liaise with DEFRA over the Peatland Strategy for England
What do you like about the IPS?	
What at the IPS can be improved?	Encourage adjacent NCs to hold joint meetings for discussion, scientific meetings and planning.

Deadline 31 January 2020, Status 24 April 2020

Note that the membership figures might slightly differ from the official IPS membership list.

See you in summer
2021 in Estonia?

Be there.

16th International Peatland Congress

*Peatlands and Peat - Source of
Ecosystem Services*

Tallinn, Estonia

www.ipc2020->21.com