

30 March 2022

Peatlands

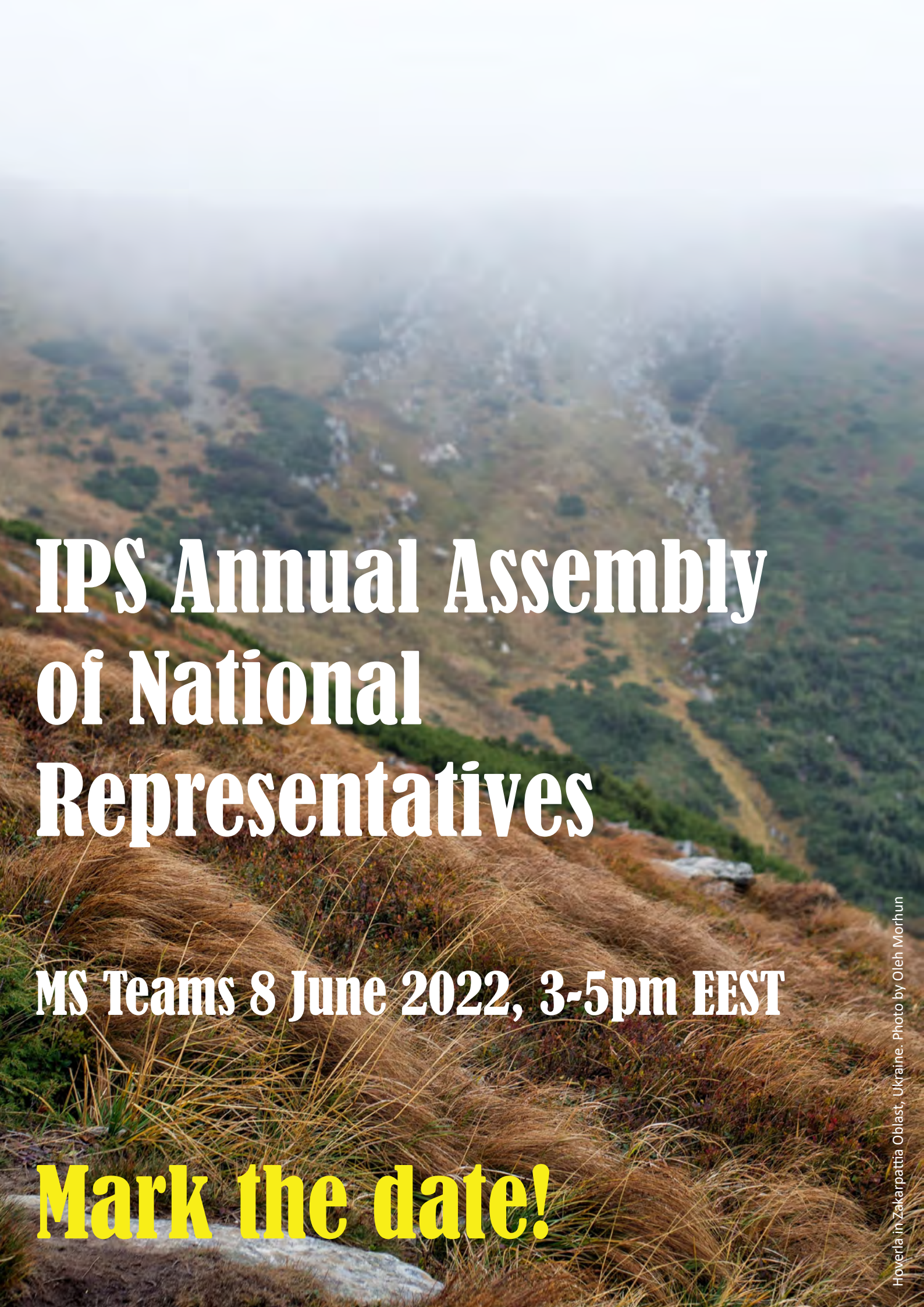
International

issue 1.2022



We stand with Ukraine.

IPS Response to Russian Aggression in Ukraine
Editorial: Ukraine, climate and the future of the IPS
Meet the Candidates to the IPS Executive Board 2022-2026 & Winners of the Allan Robertson Grants 2022
Climate impacts of restoring fertile peatland forests and afforesting cutaway peatlands in Finland
Incentives for house owners in Dutch peatland districts to invest in solid foundations
Sphagnum Farm Barver: Completion of the moss paludiculture site
Responsibly Managed Peatlands Certification in New Webinar
CSPMA Champions Restoration on World Wetlands Day
IVG Medientag Garten: "Positive trend continues"



IPS Annual Assembly of National Representatives

MS Teams 8 June 2022, 3-5pm EEST

Mark the date!

Editorial



Ukraine, climate, and the future of the IPS.



Dear members,

I wonder if anyone will ever develop research into the Russian attack on Ukraine in the context of climate change. The fact is that this climate effect exists.

However, when it comes to war, the effects of climate change are certainly at the bottom of the list of concerns. Russia's attack on Ukraine has also received a reaction from the IPS Executive Board.

To underline our intention and join others in their efforts to put pressure on the current Russian government, we are forced to sadly announce that

IPS will suspend the membership of the Russian National Committee and its members and not accept Belarusian members until further notice. IPS will also not allow the participation of Russian-based or Belarusian citizens and organizations at its events nor publish their work in IPS publications. Sales of books, services and other items to Russia and Belarus are currently paused.

As you will see in this magazine, the peaceful world of science is still moving forward. Scientists are trying to find good ways to grow Sphagnum and a young start-up is trying to contribute to remote sensing. The Netherlands is scratching its head at the wooden foundations of houses in its peatlands. The role of horticulture in our lives is

Peatlands International is the global magazine of the International Peatland Society (IPS). It provides the more than 1,500 individual, institute and corporate members of the Society with up-to-date information on peat and peatland matters, reports and photos of conferences and workshops, background reports and publication reviews. To serve all of our members, we provide always a good balance between economic, social and environmental points of view. Opinions are those of the authors. To receive Peatlands International in your email every three months, visit www.peatlands.org/join-us and sign up as a member - or easily **subscribe** for € 59/year via our online shop.

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Cover: Smiling boy outdoors. Photo by
Eugene Tkachenko
www.peatlands.org/publications

being discussed, and it is to be expected that peat as an energy carrier will be recalled.

The IPS Executive Board has launched a Position Paper "Embracing Change: IPS 2022-2025" last month and is waiting for feedback from its National Committees on how to proceed in such circumstances. We ourselves are convinced that our organisation has an important role to play for science and we need extra manpower for that. This means also that more financial resources are needed.

In addition, we are changing generations. Just before writing these lines, Canada's Grand Old Peat Man, member of the Executive Board and head of the Peatlands and Economy Commission, Paul Short, announced his retirement for this summer. I thank Paul for the part of the journey we were able to take together.

Of course young, very talented and eager replacement is on its way, as you will see from the introductions of the six potential Executive Board members in this issue of Peatlands International. Elections will be held on 8 June during the virtual Annual Assembly. I am convinced that peace will win!

Marko Pomerants

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IPS Response to Russian Aggression in Ukraine

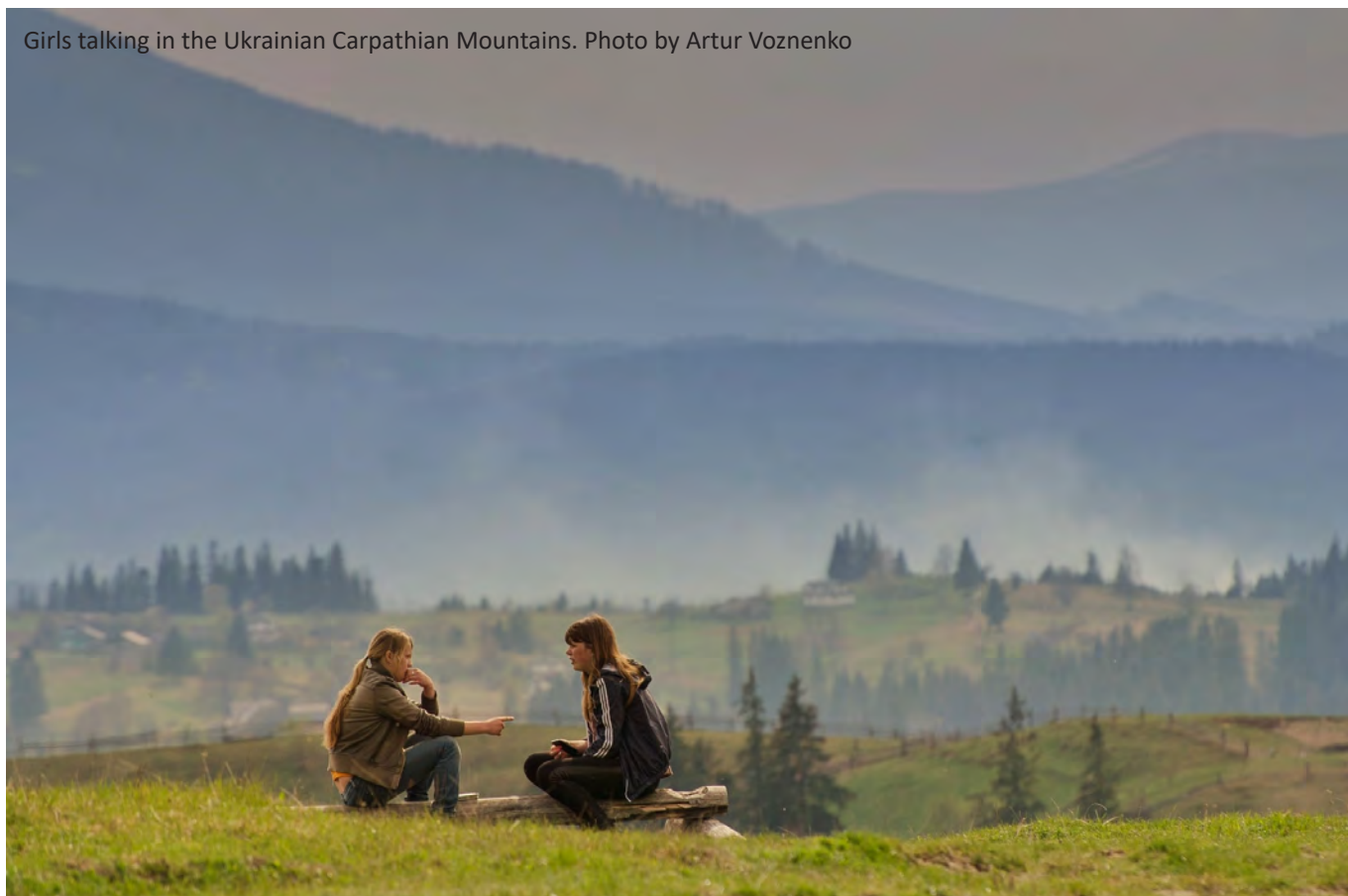
The International Peatland Society is deeply concerned about the ongoing military and political Russian aggression against the sovereign and independent state of Ukraine, supported by Belarus.

All three countries have or have had members in the IPS, and cooperation has been fruitful over more than fifty decades, on professional as well as personal level. We have often stated that the IPS provided a bridge between countries

even during the Cold War and that it has been excellent in bringing people from very different backgrounds together, even in difficult times. However, a full-blown war is never justified. It destroys economies, habitats, trust and the lives of ordinary people in every respect. We demand that the attacks on the citizens and cities of Ukraine be stopped immediately.

To underline our intention and join others in their effort to put pressure on the current Russian

Girls talking in the Ukrainian Carpathian Mountains. Photo by Artur Voznenko



government, we are forced to sadly announce that IPS will suspend the membership of the Russian National Committee and its members and not accept Belarusian members until further notice.

IPS will also not allow the participation of Russian-based or Belarusian citizen and organisations at its events nor publish their work in IPS publications. Sales of books, services and other items to Russia and Belarus are paused.

To alleviate the consequences of this war, our Executive Board has decided to donate €1,000 of the IPS' budget to the Red Cross' Emergency Fund. In addition, our Estonian National Committee kindly stepped in to cover the Ukrainian membership fee 2021. If you want to chip in, visit our campaign page at the Red Cross website: <https://bit.ly/3tSIXFo>

IPS also encourages its members to support local refugee aid activities and join or promote the "Science for Ukraine Initiative", by offering academic positions to Ukrainian scientists and thus helping them to cope abroad: <https://scienceforukraine.eu>

Having said this, the IPS would like to underline that despite the above measures we do not accept any racism towards Russian-speaking people. We remain in our hope that active and friendly cooperation can be achieved again at some point in the near future.



Sunflowers are one of the national symbols of Ukraine, which is also called the breadbasket of Europe - due to its fertile black soil farmlands. Photo: Kubra D

We are disheartened to implement these decisions but kindly ask members to understand. Our hearts go out to the people in Ukraine, especially women and children who have to flee from their hometowns, losing everything.



Help is provided by a broad range of organisations as well as local and international volunteers. Photo: Red Cross Romania



We also think of their husbands and sons who have to remain and defend their homeland and its independence in a war launched by the Russian President, facing a situation that we have not seen in Europe for many decades. Slava Ukraini.

*IPS Executive
Board & IPS
Acting Secretary
General*

Meet the Candidates to the IPS Executive Board 2022-2026

The Annual Assembly on 8 June will elect a new Executive Board (EB) for the IPS. There will be six vacant seats. Peatlands International has asked the Board candidates to share their beliefs and goals for consideration with regard to these important positions.

While the Annual Assembly is the highest decision-making body of the IPS, the EB carries responsibility for the overall management and financing of the society. It consists of three Presidents and eight ordinary members currently. Half of the ordinary members change every second year. On this occasion, we will also fill two two-year positions for Board members, who wish to leave their roles before the term ends - therefore we have six vacant seats.

Nominations have been sent in by six National Committees so far. EB members that will not be re-nominated are Ingrida Krigere, Erki Niitlaan, Paul Short and Frank Tamminga. Elections for Presidents will be held in 2024 in China. The candidates to date are so far (in alphabetical order, deadline was 14 March, with some flexibility):

Asha Hingorani, Canada

- President, Canadian Sphagnum Peat Moss Association (CSPMA)
- Wine Growers Canada, Director of Government and Public Affairs & Algonquin College Professor: Scientific Communication for Public Policy / Regulatory Affairs 2016-2021

- The Hill Times Publishing, Online Editor and Journalist 2011-2016
- Master of Arts in Public Ethics
- Bachelor of Arts with Honours in Political Science - Minor in Geography

Effective communication is the foundation that will help manage and minimize controversies. This is also a key strength of mine that I will bring to the EB level of the IPS. With constant requests for media inquiries and opposition to peat harvesting being raised in all circles, I will help by using my skills to relieve some of the stress put on IPS by helping to provide science-based information when responding to requests.



Further, with Canada being a leader in many areas, especially how we've been successful with managing our industry-science partnerships, these skills can be transferred to the IPS. This is especially important with the possible adoption of a Science Officer.

IPS members should vote for me as a member of the Executive Board because I bring a fresh perspective to the IPS, and my work with governments and effective lobbying skills would be an asset to any organization looking to build profile, influence and create an impact.

Bernd Hofer, Germany

- Chair of IPS Commission Peatlands and Environment 2016-
- Managing Director of Hofer & Pautz GbR 1988-
- Member of Scientific Advisory Committee of the German Peat Society (DGMT)
- Expert in the development of Responsibly Produced Peat (RPP) and member of the Committee of Experts
- Study of Landscape Ecology at the University of Münster (Dipl. Geograph), Minor subjects: Biology and Geology

Since the 15th International Peat Congress of 2016 in Kuching, Malaysia, I have been chairing the Commission "Peatlands and Environment" within the new IPS structure. During this time, I worked, among many other tasks, on the IPS projects "Peat for food", "Peat Dialogue" and "Peat Concept 2050".



Although not all projects have become "international bestsellers", they still perform the most important functions within the IPS: they analyse the situation in an unbiased way on a scientific basis and discuss this in front of a wide audience. Nowhere else do young scientists come into contact with such a broad range of concepts and approaches. I would like to ensure the continuation of this exchange of sometimes contrasting interests within the EB.

Through my daily work with the peat industry, eNGOs, administration and politics, I have my finger on the pulse regarding current socio-political developments and can bring this knowledge to the Board.

Sabine Jordan, Sweden

- Researcher (70 %), coordinator (20 %) and lecturer (10 %) at Swedish University of Agricultural Sciences (SLU) focusing on

Agronomy, Soil and Peatland Science, Climate and Greenhouse gases

- Doctor of Agronomy, (SLU); Thesis about "Impacts of rewetting on peat, greenhouse gas emissions, hydrology and water chemical composition in terminated peat extraction areas"
- MSc in Geography, Agriculture & Sociology, Humboldt-Universität zu Berlin, Germany; Thesis about "Phosphorus binding forms in fens - a basis for an interpretation of phosphorus release"
- Board member Swedish Peat Research Foundation
- IPS Executive Board member 2018-

As a scientist, I will refine and strengthen the knowledge transfer between the IPS and the global network of peat and peatland experts and stakeholders involved in environmental, economic and societal aspects of peat and peatlands.



Furthermore, I will share my knowledge of peat and peatland matters in both directions, keeping the IPS Board and international community informed of local and regional peat and peatland activities, as well as ensuring that the Swedish peat and peatland community is up to date with IPS matters.

As a link between IPS and Responsibly Produced Peat (RPP), I will use my expertise to promote the responsible management of peatlands, including food and substrate production, in compliance with climate-smart after-uses. I will continue to support the IMCG/IPS joint journal "Mires and Peat" in my role as reviewer, article editor and deputy editor-in-chief.

Lulie Melling, Malaysia

- President of Malaysian Peat Society 2017-, Treasurer-General 2008-2016
- Director of Sarawak Peat Research Institute 2008-

- Doctor of Philosophy, Hokkaido University, Japan, Project: Greenhouse gas fluxes from tropical peatland of Sarawak, Malaysia
- Master of Agriculture Science in Soil Science, University of Reading, United Kingdom
- Bachelor of Science in Geography (Hons), University of Malaya, Kuala Lumpur
- IPS Executive Board member 2018-



As a peat scientist, my avid interest relates to the field of tropical peatland research, so as to ensure environmental sustainability of both development and conservation. Hence, I wish to see IPS operating as a platform for awareness, research

collaboration and partnership, to further enhance the understanding of tropical peatlands around the world.

Under the flagship of the Malaysian Peat Society (MPS), I was given the opportunity to lead and organize the 15th International Peat Congress in 2016, which was the biggest and the best conference in the history of the IPS. The success of this event has proven my track record with the IPS as well as my dedication and credibility as peat ambassador for tropical peatlands within the IPS.

As the next Peatland Congress is planned for China, I will certainly be the most strategically placed marketer to promote this event in 2024.

Anna-Helena Purre, Estonia

- PhD in Ecology of Tallinn University, Thesis: Carbon dioxide dynamics and recovery of vegetation on restored peatlands
- MSc and BSc in Geoecology of Tallinn University
- Environmental Specialist at Engineering Bureau Steiger LLC 2018-
- Member of the Board of Elige OÜ 2014-
- Project Specialist at Tallinn University, Institute of Ecology 2017-2018, LIFE project "Reduction

of CO₂ emissions by restoring degraded peatlands in Northern European Lowland"

For me, the IPS is a leading peatland management network, balancing the knowledge base and interests of various stakeholders. With my background in researching peatlands, their restoration and climate impact, as well as supporting peatland management decisions from the viewpoint of environmental impacts and their mitigation, I hope to ensure the continuation of balanced and scientifically-backed decisions within the IPS Executive Board.



Many people from various backgrounds bring their divergent and valuable experience to the IPS, but in my opinion, engaging the younger generation of peatlanders is significant for the long-term continuation of the organization. I consider three topics, those of balancing stakeholders' interests, mitigating the environmental and climate impacts of peatland use and involvement of the younger generation as being closest to my heart.

Meng Wang, China

- Secretary General, IPS China National Committee 2019-
- Professor at the Institute for Peat and Mire Research, School of Geographical Sciences, Northeast Normal University, Changchun 2018-
- Associate Professor, College of Forestry, Northwest A&F University, 2014-2018
- PhD in Geography, McGill University
- MSc in Ecology, Zhejiang University
- BSc in Biological Engineering, Qingdao University of Science & Technology

As an active peatland scientist, my involvement as an EB member will reinforce the foundation of the IPS as a society that gives a professional insight into peatlands, as well as wise peat use and management. I propose to dedicate more time (volunteer-based) to working closely with the Science Officer (to be hired if funding can be

obtained), to enhance the power of discourse and reputation of the IPS among our stakeholders, the academy and industry, and to coordinate the balance between the two.

Furthermore, the diversity of region, gender and age of EB members is also an important aspect in terms of maintaining the representativeness of the IPS as an international society, and for this reason, I believe I would be a suitable candidate.



As you can see, these candidates incorporate an exciting mix of new talents and aspirations. The nomination letters and CVs of the Board candidates will be sent together with the official invitation to all National Committee Chairs and Secretaries in April, no later than 40 days before the virtual Assembly on 8 June, during which all official representatives will be asked to vote. We will keep you informed on the results. As every year, observers are warmly welcome.

Susann Warnecke

Acting Secretary General
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Photos provided by EB candidates



Download the IPS Annual Report 2021 – click here!

IPS Position Paper 2022-2025: Embracing Change

A Position Paper and Proposal from the Executive Board for Structure and Funding for 2022 to 2025 has been sent to all National Committees and a number of corporate members this and last month. We kindly ask you to study and discuss the document and send your comments to Paul Short, Asha Hingorani and/or the IPS Secretariat as soon as possible, latest by the end of March.

Your feedback is essential for the future of the IPS. The intention is to strengthen the science work of the Society as well as to simply ensure the survival of our organisation beyond 2022-2023.

First EU H2020 Merlin Project Peat Extraction Stakeholder Roundtables take shape in April

The first stakeholder round tables for the EU Horizon MERLIN project are planned for April. Initiated by the IPS, 10 organisations involved in the practical restoration of cutover peatland sites, including major companies, have agreed to participate. The intention is to collect current restoration mechanisms, data and experiences from all over the EU, identify challenges and foster solutions.

In addition, the Merlin project includes 5 peatland sites in Denmark, Sweden, Finland, Poland and Bosnia and Herzegovina, in a range from near-pristine via agricultural use to a former peat extraction area. Twin sites especially promote the exchange of knowledge.

The overall goal of the project is "Mainstreaming Ecological Restoration of freshwater-related ecosystems in a Landscape context: INnovation, upscaling and transformation" and IPS is proud to be one of the 44 partner organisations.

The next All-Partner-Meeting will be held on 29-30 March virtually, attended by at least Jack Rieley, Bernd Hofer and Susann Warnecke. To find out more visit <https://project-merlin.eu>.

CSPMA Champions Restoration on World Wetlands Day

World Wetlands Day (WWD) is observed on February 2 every year to raise awareness of the important role wetlands play in global physical well-being and the ecosystems they serve.

WWD provides an opportunity for the Canadian Sphagnum Peat Moss Association (CSPMA) to highlight the industry's globally championed

restoration techniques and the commitment to restoring peatlands under the National Peatland Restoration Initiative (NPRI), a national industry wide commitment.

“The goal of peatland restoration after horticultural peat harvesting is to re-establish self-regulatory mechanisms that will lead back



Line Rochefort examining a bog pool at a restoration site. Photo: GRET-PERG

to a naturally functioning ecosystem, including its ability to accumulate peat,” said CSPMA President, Asha Hingorani. “Restoration is a core value of Canada’s peat producers, which is why in 2016 CSPMA members adopted the NPRI,” added Hingorani.

The industry’s NPRI covers all areas where peat companies have been or are present in Canada since the creation of the industry in the early 1920’s. The primary goals of the NPRI were to reduce by 30 per cent the historical non-restored areas in the first five years of its inception, with a target of 100 per cent reduction within 15 years. The NPRI also includes the promotion of ecological restoration by the Moss Layer Transfer Technique (MLTT) in at least 60 per cent of these areas. “Within the first 4 years of the NPRI (2016-2020), members have reduced the historical non-restored areas by 28 per cent,” said Hingorani.

Canada is a global leader in peatland restoration, including the internationally championed MLTT, which was developed and refined over more than 30 years of research and collaboration with the Peatland Ecology Research Group (PERG), an academic forum led by Canada’s advanced university researchers. This technique and Canada’s leadership in this field has been applauded in many global forums including recently at COP26 in Glasgow.

“The role of peat or carbon-accumulating peatlands, as an important nature-based solution to mitigate climate change, is being slowly discovered globally. Prompt active ecological restoration post-extraction can jump-start the recovery to net CO₂ sequestration. In Canada, 30 years of research in partnership academia-industry has led to the development of an ecological approach to peatland restoration. So, it is not how or if we can restore Sphagnum bogs, it is a matter of planning to do it with all the restoration tools, stakeholders, and guidelines available,” said Dr. Line Rochefort, National correspondent for Canada for the Scientific and Technical Review Panel (STRP) of the Ramsar Convention on Wetlands.

A great deal of knowledge has been developed around bog restoration, and more research is needed to adapt the restoration methods to the variability of conditions found. New research

programs are being implemented, such as the program announced in the summer of 2021 with Brandon University (BU) of Manitoba, supported by the Natural Sciences and Engineering Research Council of Canada (NSERC) and the CSPMA, to investigate fen restoration and hydrology, which are common in the Prairies and western provinces.

About the CSPMA

The CSPMA is the Canadian national association of horticultural peat moss producers. The association is devoted to promoting responsible management of Canadian peatlands. CSPMA provides support to and advocacy for its members and leadership in environmental and social stewardship, as well as economic well-being and food security related to Canadian peatland resources use.

Asha Hingorani

CSPMA President
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Join the IPS Expert Groups!

IPS's work is mainly carried out via Commissions and Expert Groups. Do not hesitate to join them!

- Peatlands for Agriculture: josschouwenaars@kpnmail.nl
- Peatlands for Forestry: sakari.sarkkola@luke.fi
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- Peatland Conventions and International Affairs: jack.rieley@peatlands.org
- Peatlands and people, health and local livelihoods: *vacant*

Data soon available on the climate impacts of restoring fertile peatland forests and afforesting cutaway peatlands in Finland

There is an increasing need to study the role of peatlands as part of climate change mitigation and emission reductions. The Finnish government has launched the “Catch the carbon - research and innovation programme 2021-2024” for climate change-related projects in the land use sector.

The programme provides resources for studying greenhouse gas (GHG) emission reductions and ways to strengthen carbon sinks and reservoirs also in peatlands. It is highlighted that to achieve the target of a carbon-neutral Finland by 2035, more studies are needed, especially concerning drained peatlands (Ministry of Agriculture and Forestry of Finland 2022).

TURNEE project produces data

One project funded from the programme is called “Forests on peatlands - solutions for reducing emissions and increasing of carbon sinks (TURNEE)”. The project uses new measurements

and modelling to investigate to what extent emissions from the land use sector could be reduced by restoring fertile peatland forests, and how far sinks could be increased by afforesting abandoned cutaway peatland areas in Finland.

The climate impact of the restoration of drained forest peatlands are important to study. Raising the ground water table level reduces the decomposition of peat and emissions of carbon dioxide (CO₂) and nitrous oxide (N₂O) (Minkkinen et al. 2020), but likely increases methane (CH₄) emissions, especially in nutrient-rich mires (Vanselow-Algan 2015), which means that the climate benefits of restoration can be offset for decades (Ojanen and Minkkinen 2020). However, the studies which show an increase in CH₄ emissions are almost all from agricultural areas and from warmer climates compared to Finland. No previous knowledge exists from fertile boreal peatland forests.

Cutaway peatlands are also a potentially significant target for emission reductions. Because of climate change mitigation policy in Finland, energy peat harvesting practically ceased in Finland in 2021,

leaving behind tens of thousands of hectares of cutaway peatlands that are in need of an after-use plan. From the perspective of climate change mitigation, the different after-use options may create very different outcomes. However, little data on the climate effects of different after-use options is available.

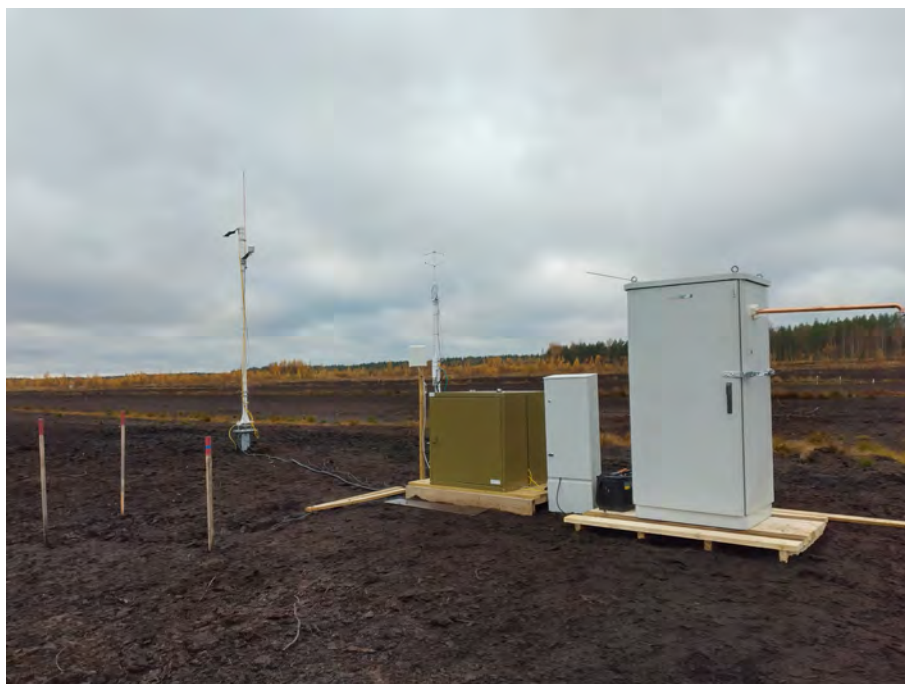
Afforestation is a common after-use method, which is also encouraged by the law on temporary support for afforestation (HE 150/2020). Successful afforestation creates a carbon sink from the growing tree stand. In cutaway peatlands, the residual peat is usually nutrient-poor, and thus fertilization is needed. With the help of fertilization, afforestation may even be successful naturally, at least if downy birch is accepted as a tree species to be grown (Alatalo 2020). However, as the trees need good drainage and fertile soil, carbon loss from the peat soil may well exceed the carbon sink by the tree stand. Thus, there is a risk that afforested thick-peated sites will become long-lasting C sources rather than sinks, contrary to the climate mitigation goals.

Measurements in TURNEE

In the TURNEE project, climate impacts are or will be measured at two new sites, equipped with an eddy covariance system and instruments for ancillary meteorological measurements.

In addition, small particle formation will be measured. The measurement setups are based on the SMEAR concept

Figure 1: Instrument cabins and towers for the intensive measurements of total climate effects on afforested cutaway peatland in Naarasneva, Finland. The taller tower is for the meteorological measurements, while the shorter tower is for the eddy covariance fluxes. The cabin to the right with the long horizontal inlet includes the NAIS (neutral cluster and air ion spectrometer) analyser for small aerosol particles.
Photo: Kari Laasasenaho



(station for measuring earth surface - atmosphere relations, see Hari and Kulmala 2005, Hari et al. 2016), which combines the observation of GHG exchange (Integrated Carbon Observation System, ICOS, compatible measurements) and atmospheric aerosol particle measurements (Aerosols, Clouds, and Trace gases Research Infrastructure, ACTRIS, compatible measurements).

These globally unique monitoring stations will provide information on the overall climate impact of peatlands for many years to come even after the end of the TURNEE project.

An intensive measurement station was established on a cutaway peatland, Naarasneva, Soini, western Finland, in autumn 2021. The station is measuring

1. GHG exchange between the peatland and the atmosphere,
2. aerosols formed by trees and other vegetation and the subsequent formation of small particles,
3. surface albedo and other ancillary meteorological parameters, and
4. carbon and nutrient release along with water discharge.

The site was fertilized with wood ash in January 2022, and it will be afforested by planting pine seedlings in spring 2022. Thus, we are able to monitor the changes in gas and water fluxes following afforestation. Next to the test field, we have established an experimental area where GHG emissions will be measured with the GHG

flux chambers from a plain, unforested peat soil, serving as a control plot, and from areas with different fertilization treatments.

The immediate effects of the restoration of forestry-drained peatland on GHG emissions will be measured at an intensive measurement station, which will be set up in a fertile forestry-drained peatland in Tammela, southern Finland, in spring 2022. The peatland will be rewetted about a year after the start of the measurements. CO₂ and CH₄ exchanges will be measured using the eddy covariance method.

In connection with the rewetting, the tree stand in the peatland will be thinned to resemble the state of the peatland before drainage. Measurements will continue for several years after the project has ended. In addition, we will study the distribution of greenhouse gas exchange (CO₂, CH₄ and N₂O) between the soil, ground vegetation and trees, using the chamber method. Biomass measurements of different vegetation layers will also be conducted. The collection of data has begun, and the first scientific results will be published in the coming years.

The TURNEE project is a joint project together with University of Helsinki, University of Oulu, Finnish Meteorological Institute and Seinäjoki University of Applied Sciences in 2021-2023. The total project budget is ca. 1.9 million euros.

For more information on the project please contact the authors:

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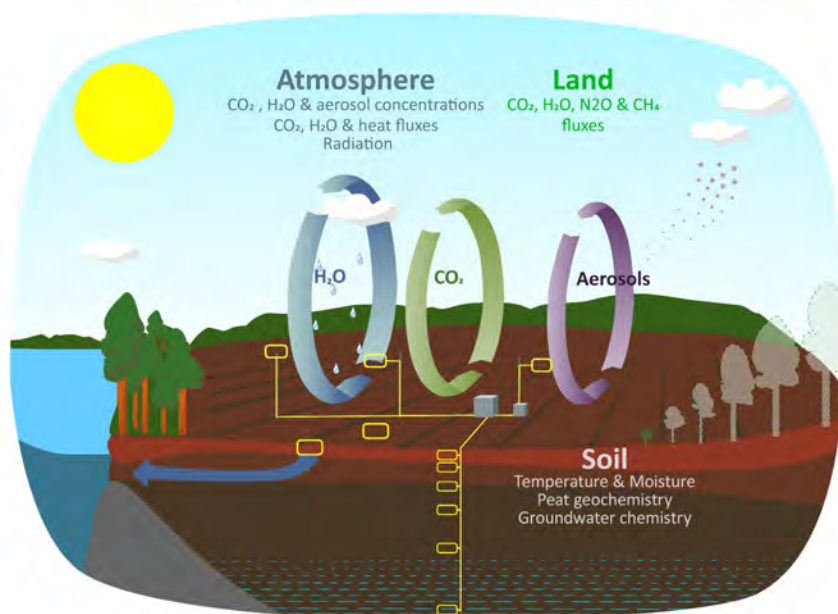
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SMEAR- Afforestation

Station for Measuring Earth surface- Atmosphere Relations



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Station for measuring ecosystem-

Figure 2: The SMEAR afforestation station is measuring, e.g., CO₂, water and aerosol exchange between atmosphere, land and soil. Illustration: Núria Altimir

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Figure 3: The site for the measurement station in a peatland forest that is to be restored in Tammela, southern Finland. Photo: Kari Minkkinen

Consulting Oy / AFRY Management Consulting Oy, 8/2020

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IVG Medientag Garten: “Positive trend continues”

Düsseldorf, March 2022. At the 21st IVG Medientag Garten on 3 March 2022, Klaus Peter Teipel of Klaus Peter Teipel Research & Consulting, gave a presentation entitled “Quo vadis garden market? What can/must the sector expect after the record year 2020!”, announcing the preliminary figures for the green sector for 2021.

In front of around 130 press representatives, Teipel also ventured a forecast for 2022 and delighted the industry with the statement:

“Overall, the development underlines the high stability of the market, the importance of garden products among consumers remains high.”

In his review of the past year, Teipel pointed out that due to the exceptional growth in the first year affected by coronavirus, the forecast for 2021 was rather subdued at the beginning of last year. “Nevertheless, the year clearly exceeded expectations despite the lockdown and a rainy summer,” said Teipel. Even noticeable price increases have not been able to negatively



influence the demand for garden purchases overall. On the contrary: with a 1.4 per cent increase in sales, the market grew to 21.2 billion euros in 2021 (2020: 20.9 billion euros).

Particular impetus came from the living green segment in 2021 (+5.9 per cent), while the hardware segment (-3.6 per cent) suffered sales losses in that year due to above-average sales figures in 2020. The demand for biological chemical products also decreased compared to the previous year (-3.2 per cent).

Positive future prospects

The coronavirus has also changed the world of gardening a lot in the last two years and accelerated many developments. "Whether this 'garden boom' will continue to make itself felt beyond this time remains to be seen," says Teipel. "However, there is much to suggest that the garden will take on a special significance in the future."

After all, the topic of sustainability continues to be in vogue. In the context of climate change and environmental protection discussions, the younger generation is also discovering the subject of plants

IVG in German - Über den IVG

Im Industrieverband Garten (IVG) e.V. haben sich Hersteller von Produkten der „Grünen Branche“ für den Hobby- und Profimarkt zusammengeschlossen - darunter Pflanzenhersteller, Produzenten von Forst-, Garten- und Rasenpflegegeräten, Hersteller von Garten-Lifestyle-Produkten, von Produkten zur Pflanzenpflege, -ernährung und -gesundheit, Hersteller von Substraten, Erden und Ausgangsstoffen sowie Hersteller von Produkten für den Erwerbsgartenbau.

Der IVG vereint derzeit rund 150 Mitgliedsunternehmen der Gartenbranche und hat seine Kernkompetenzen in den Bereichen Information, Netzwerk, Öffentlichkeitsarbeit und Lobbying. Weitere Informationen finden Sie auf www.ivg.org.

and gardens for themselves. In urban areas, the idea of social gardening (small and allotment gardens) is gaining ground.

Teipel's conclusion for the future is: "In the long run, structural changes will shape the market, but the positive trend will continue."

More info: www.ivg.org.

Stefan Pohl

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Campus Farming at Helsinki University

Campus Farming at the University of Helsinki started with a small experiment with 30 farming bags in 2013 and has become very popular in the meantime. The enrollment usually opens in May. All students, graduate students and staff members can apply for a farming spot. You can only reserve one farming spot - for yourself, or for a group of people for the price of €10.

Locations last year were for instance at Kumpula, Viikki and Snellmania. Kumpula had even 62 brand new farming boxes and is easily accessible by public transport. Farming boxes at all locations already contain growing media, and shovels, watering cans and other farming essentials are provided in the area.

More information and the application forms can be found via <https://blogs.helsinki.fi/kampusviljely-campus-farming>. See also updates at instagram @kampusviljelyry and Facebook: www.facebook.com/hyynkampusviljelyvaliokunta



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New Members of the IPS

New members (or new contact persons for corporate and institute members, and industry partners) are mainly approved by our National Committees. For all other countries, the approval is made by the Executive Board of the IPS.

Each National Committee is asked to compare their membership list to that of the IPS at least once a year (status below as of 25 March 2022). In some countries, IPS has both a National Committee and an industry association as a member.

In countries without a National Committee (including Latvia and Poland), member applications can be sent directly to the IPS Secretariat or via www.peatlands.org/join-us. Members are currently not accepted from Belarus and Russia.

Membership fees 2022 for all members will be invoiced in May/June after the Annual Assembly.

Student members:

Poland: Jolanta Pilch

United Kingdom: Ennia Bosshard, Katy Ross

Individual members:

China: Yuming Bi, Zhaojun Bu, Huai Chen, Zhiyang Jiang, Liangyun Li, Nianwen Li, Xiaoyang Liu, Guanghui Liu, Jiming Lu, Zhiyong Qi, Jialin Qi, Juan Qiu, Jun Sun, Jun Tan, Xianwei Wang, Huifa Wang, Jianping Wu, Jiayuan Xiao, Dongni Yang, Songdong Yang, Junhui Zhang, Mingming Zhang, Jinshan Zhao, Bin Zhao, Ming Zhu

Ireland: Ken Bucke, Jo Killalea, Dave O'Leary, Matthew Saunders

Netherlands: H.T.M. Boon

Norway: Mari Jokerud

Latvia: Valerijs Kozlovs

Sweden: Johan Sundström

Corporate, institutional & NGO members:

Ireland: Janice Fuller, Sharon Byrne, Michael Donlon, Conor English, Deborah Meghen (Coillte), Nuala Madigan (Irish Peatland Conservation Council), Geraldine O'Sullivan (IFA)

Lithuania: Rita Šerkšnienė (IPS Lithuanian National Committee), Algimantas Zepčiukas (UAB Renavodurpynas)

Netherlands: Raymond Hedges (Stichting RHP)

You can ask for, change or delete your membership information any time by contacting susann.warnecke@peatlands.org. **More info and membership form:** www.peatlands.org/join-us

Membership benefits:

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Responsibly Managed Peatlands Certification in New Webinar

Hosted by Canadian Horticultural Peat Producers and SCS Global Services

Since 2012, members of the Canadian Sphagnum Peat Moss Association (CSPMA) have actively participated in the world's gold standard for sustainable horticulture - Responsibly Managed Peatlands: A Veriflora® Standard for Responsible Horticultural Peat Moss Production.

Certification to this standard guarantees the application of good management practices in all aspects of sustainable development. The program is administered by an independent certification body, SCS Global Services (SCS), which is one of the most recognized auditing and certification bodies in North America.

In celebration of this 10th anniversary, CSPMA and SCS will be showcasing the benefits of the Responsibly Managed Peatlands certification in a webinar on Wednesday, April 13th at 1:00 pm (EDT). The webinar, "Embracing Continuous Improvement in Responsible Peatland Management" will take a deep dive into the implementation of the audit process with three certified peat producers covering peatland restoration and greenhouse gas inventories.

"The certification not only provides concrete industry guidance for responsible management of the resource but provides growers and customers purchasing Veriflora® Certified products the peace of mind that they're purchasing a product where Canadian producers guarantee fair labour practices, strict ecosystem protection, resource conservation, and community engagement, among others," said Asha Hingorani, President of the CSPMA.

What does Responsibly Managed Peatlands Certification mean?

The tenets of the Responsibly Managed Peatlands program include:

- Environmental Responsibility: Protecting and building soil health, conserving water, and energy, reducing climate impacts, properly managing waste, and supporting healthy ecosystems.

Learn More - Register for the Certification Webinar:

Embracing Continuous Improvement in Responsible Peatland Management
Wednesday, 13 April 2022, 1 pm - 2 pm (EDT)

Speakers:

- Pierre-Olivier Sauvageau, Resource Counselor, Berger
- Pierre-Olivier Jean, Natural Resource Manager, Premier Tech Horticulture
- Tania Garcia Bravo, Technical Resources, Sun Gro
- Kevin Warner, Director of ESG Certifications & Strategy, SCS Global Services

Register here:

<https://attendee.gotowebinar.com/register/8950998139611776011?source=affiliate>

- Social Responsibility: Promoting healthy workplaces and communities
- Economic Responsibility: Reinforcing the long term, economic viability of agriculture operations and achieving benchmark quality levels.

“Economic, social and environmental responsibility are the pillars of commitment for certified companies, who operate in a way that preserves peatlands for future generations, reduces stress on the environment and improves the welfare of workers and nearby communities,” added Hingorani.

Why attend the webinar

Join SCS and Canadian peat producers from Berger, Premier Tech Horticulture and Sun Gro for an in-depth look at the benefits of being certified to the Responsibly Managed Peatlands Program.

The webinar will cover:

- The Audit Process
- Peatland Restoration
- Greenhouse Gas Inventories

About the CSPMA

The CSPMA is the Canadian national association of horticultural peat moss producers. The association is devoted to promoting responsible management of Canadian peatlands. CSPMA provides support to and advocacy for its members and leadership in environmental and social stewardship, as well as economic well-being and food security related to Canadian peatland resources use.

About SCS Global Services

Founded in 1984, SCS Global Services is a global leader in third-party environmental, sustainability, and food safety verification, certification, auditing, testing, and standards development. Its programs span a cross-section of industries, recognizing achievements in natural resource management, green building, product manufacturing, food and agriculture, supply chains, climate mitigation and more.

Headquartered in Emeryville, California, SCS has representatives and affiliate offices throughout the Americas, Asia/Pacific, Europe, and Africa. Its broad network of auditors are experts in their fields, and the company is a trusted partner to companies, agencies, and advocacy organizations due to its dedication to quality and professionalism.

SCS is a chartered Benefit Corporation, reflecting its commitment to socially and environmentally responsible business practices. For more information, visit www.scsglobalservices.com.

Asha Hingorani

CSPMA President
asha@peatmoss.com
www.peatmoss.com

Photos welcome! If you would like to contribute peatland and peat photographs to our publications, email ips@peatlands.org :)

Sphagnum Farm Barver: Completion of the moss paludiculture site

In spring 2020, the Interreg project CANAPE created an initial paludiculture pilot of one ha to trial Sphagnum farming on degraded, intensively drained and eutrophicated bog grassland in the regional conditions of the Diepholz district (Lower Saxony, Germany). Peatlands International reported on the start of the project one year ago, in its issue 2.2021.

Barely 18 months after this first production field went into operation, the installation of an extension area was completed in December 2021. Its short-term realization was made possible by the land consolidation authority's need for peat to fill ditches and create embankments at the edge of nearby renaturation areas. This allowed the removal of approx. 3,000 m³ earthified topsoil



Picture 1: Stripping the degenerated topsoil to create the production polder. Photo: Jens-Uwe Holthuis

Picture 2: The grand finale: volunteers rolling spread peat mosses, filmed by a team from German NDR television. Photo: Jens-Uwe Holthuis



free of charge to create a levelled 1-hectare polder area for peat moss cultivation (see picture 1).

After removal of the shallow upper peat layer, the future bed proved to be problematic as it largely consists of crusty black peat interspersed with many remnants of roots and trees. The optimal white (*Sphagnum*) peat layers are rare. In addition, infiltration tests showed that the southern half of this polder bottom is permeable to the base over a large area ($k_f: > 10^{-4} - 10^{-6} \text{ m} \times \text{sec}^{-1}$) and thus unsuitable for paludiculture. Accordingly, the polder was redesigned to half of its originally planned size and the irrigation infrastructure also needed to be adapted to the new site geometry. The construction of a surrounding dam was waived as experience showed that its causeways are a weak point for management (mowing, accessibility to the polder). Dry dams are also considerable sources of greenhouse gas emissions.

The inoculation of the peat mosses was the final sprint and at the same time the core of establishing the site. Shortly before the peat moss application, precipitation led to a rise of the water

level in the irrigation ditches, leading to a peat that was well water-saturated before application. The prepared cultivation area was manually inoculated in this way at the beginning of December 2021 with fragmented, mechanically harvested donor material (predominantly *Sphagnum papillosum* and *S. palustre* from the Dutch border, along with highly bog-typical accompanying vegetation such as sundew, cotton grass and cranberry) in an evenly thin layer.

The volume applied was 40 m³ per ha (4 l / m²). Finally, the fragments were lightly rolled to establish capillary contact with the wet peat (see picture 2). Since the water level of the polder area could be raised to just below the surface immediately after spreading and because low transpiration losses are to be expected during the cool, humid winter period, there was no need for mulching with straw after application. The manpower required to inoculate 0.5 ha of land was 50 man-hours.

Project manager Dr Jens-Uwe Holthuis of the Foundation for Nature Conservation in Diepholz

District states: "We profited a lot from our already acquired know-how from the installation of our first polder. The assembled network of suitable and well-established companies and the short official channels to the administration have also greatly speeded up the project. We think that our system is a good model that could help the establishment of successful paludiculture." If paludiculture is possible under such suboptimal pedological and hydrological conditions, many similar problematic areas in southwestern Lower Saxony may also be suitable for paludiculture. In the medium term, the district and the Foundation for Nature Conservation expect the facility to become a magnet for the professional public and a driver for regional paludiculture.

Routine operation at this site will start in spring 2022 and the first harvesting can be expected in three or four years. For the continued existence of the entire *Sphagnum* paludiculture site, a new operating concept that is also sustainable in the long term is required. The first co-operator of the new polder has been found in the Greifswald-based company Paludimed, which wants to produce sundew for pharmaceutical purposes on the coming peat moss lawn in the future, which will also diversify the utilization chain of peat moss production.

On 10 December 2021, the NDR programme "Hallo Niedersachsen" reported on the current restoration measures. The German-language report "Eine Torfmoosfarm für das Klima..." is available online at www.ardmediathek.de.

Further information on the Interreg project CANAPE can be found at <https://northsearegion.eu/canape/news/canape-six-months-of-learning-and-growing-at-sphagnum-farm-barver>.

Dr Jens-Uwe Holthuis

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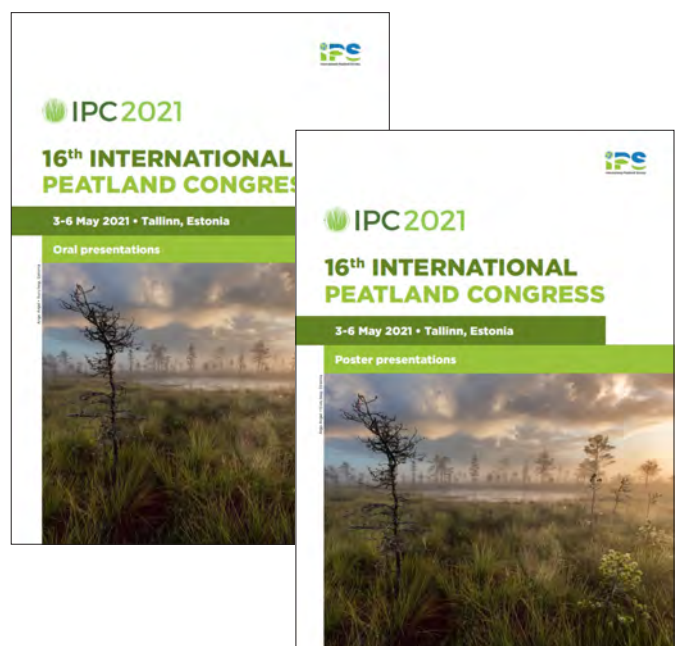
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You can now buy the last 19 original printed proceedings of the 16th International Peatland Congress 2021 and earlier events via our online shop at Holvi. The two volumes and their digital versions are available for €89 plus flat rate mailing costs (their actual mailing costs are much higher, especially overseas). Additional copies are available from Curran Associates, www.proceedings.com.

Also previous proceedings as well as the documentation of earlier Peat in Horticulture and other symposia are still available. Remember to use the IPS discount code IPSMEMBER when checking out. This reduces the price of the publications by 20% for most categories.

In addition, you can still buy the printed copies of Peatlands International before 2014 plus a number of other interesting items.

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Dr. Jan Köbbing, Head of Sustainability Management at Klasmann-Deilmann

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Introducing PEATZ

Part of the new future for peatland management

We are PEATZ, a start-up based at The Technical University of Denmark (DTU) in Copenhagen, that seeks to fight climate change with the help of satellite data.

The coming years will determine the future of our planet's changing climate, and peatlands will play a crucial role in the journey to net zero emissions and the preservation of our planet. Therefore, we are working to support restoration actions for degraded peatlands by providing an analysis tool that monitors peatland conditions with the help of optical and radar satellite data.

Our analysis will give valuable insights into peatlands, including important parameters like their conditions and greenhouse gas emissions, as well as cost-effective and efficient ways to restore them.

We will target the two main challenges facing the restoration of peatlands: the financing of restoration projects, as well as the loss of income landowners experience when restoring their peatlands. These challenges can be addressed by the adoption of a novel business model called carbon farming. Through carbon farming, private landowners restore their peatlands and receive carbon credits for the greenhouse gas emissions they prevent.

We provide an upfront cost-benefit analysis for landowners by quantifying restoration costs and carbon credit potential to enable well-founded, data-driven decisions about potential restoration projects. They can then sell these credits on the voluntary carbon market to greenhouse gas-emitting corporations and entities seeking to lower or completely offset their emissions.



The potential emergence of government-mandated carbon credit systems is also an exciting prospect in this field. Research indicates that carbon farming can be attractive from a financial standpoint when compared to current land uses, although it is not yet a widely established practice and is often accompanied by substantial initial investment. PEATZ's simplification of peatland restoration projects will bring together industries in need of credible carbon credits and give landowners a new economically viable and sustainable alternative to their current land usage.

In short, PEATZ mobilises public and private funds, streamlines peatland restoration actions, and assists with the monetisation of carbon credits for a more sustainable future.

Interested in partnering up? Sign up and follow our journey on peatz.eu and answer our short questionnaire via the QR code below!

Dominic Gleich

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Winners of the Allan Robertson Grants 2022

We are proud to announce the seven winners of this year's Allan Robertson Grants for Research Students and Young Professionals.

Twelve applications had been submitted and these are the winners (in alphabetical order):

- Ennia Bosshard: Understanding plant-pollinator networks and their role in tropical peatland restoration (to be re-evaluated by EB due to change of project site away from peatlands)
- Thibaud Glaesener: Interests groups and conflicts towards a sustainable transformation of the Wietingsmoor
- Olivia Kuuri-Riutta: The 10th meeting of International Society for Testate Amoeba Research
- Annuri Rossita: Ecosystem Services Assessment for Ecosystem-based Peatland Management
- Yvet Telgenkamp: Linking plant-microbe interaction stability to carbon cycling in peatlands
- Natasha Underwood: Ecological and biogeochemical benefits of environmental

enhancements at Moorlinch (and beyond) on the Somerset Levels

- Li Wang: Climatic and anthropogenic drivers of Holocene Scottish peatland dynamics

Each grant amounts to €500 and reports will be published in Peatlands International latest next year. The next application period will be opened in December 2022. If you would like to provide funds contact ips@peatlands.org. To learn more, visit www.peatlands.org/about-us/honoursgrants.



Incentives for house owners in Dutch peatland districts to invest in solid foundations

In the northern part of the Netherlands most peatlands were drained and used for peat cutting in the 18th and 19th centuries. Later these excavated lands were reclaimed for agriculture. Farm buildings as well as many small houses for landworkers were built, especially in the period 1850-1950.

Until 1950 these houses (bricks) were built on wooden foundations. The peat depth varied from 2 to 4 metres and the wooden piles were founded upon the underlying sandy layer.

Building regulations prescribed that the top of the piles were installed at least 50 cm below the lowest (summer) groundwater table. This depth guarantees that groundwater levels do not drop below the top of the piles.

Drainage of the peatlands for agriculture results in land subsidence. In the Netherlands, yearly subsidence of the ground surface level in drained peatlands varies from 0.5 to 2 cm.

Despite the costly efforts of the regional water authorities to maintain high water levels in the watercourses in the immediate surroundings of roads and buildings (see photos), this does not stop

the process of the gradual lowering of the groundwater levels in these peatland areas.

This implies that under most buildings, the tops of the wooden piles have often fallen dry beginning 50 to 100 years after their construction. As soon as wooden piles frequently become dry, bacteriological and fungal destruction starts, which results in the reduction of the strength of the piles and of the foundation. As a consequence, the brick walls are damaged and cracks appear.

The same processes may occur when groundwater tables are lowered as a consequence of peat cutting, as is the case near Wiesmoor in Germany.



High water levels along roads and houses to maintain high groundwater levels and prevent damage to foundations.
Photo: Jos Schouwenaars

In the last decades many houses were damaged by this process and in recent years there is a growing awareness of this problem and the inherent reduction of the economic value of these houses and buildings. More and more owners are claiming financial compensation from the regional water authorities, as these are held responsible for the lowering of the groundwater levels.



Minimal drainage levels to protect foundations with wooden piles.
Photo: Jos Schouwenaars

This discussion has contributed to new approaches in water management where drainage is limited and water levels are raised. However, this will only delay the rate of land subsidence, not stop it. Given the increasing financial problems related to the damage on houses with wooden foundations, the Dutch regional water authorities, together with the provinces and the municipalities, are trying to organise a funding strategy for the replacement of the wooden foundations with solid concrete ones, which will not be vulnerable to groundwater behaviour.

A subsidiary programme should act as an incentive for house owners to reconstruct the foundations, rather than waiting for the damage to happen.

Jos Schouwenaars

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New Articles in Mires and Peat

Volume 28 (2022)

- Regeneration potential of a degraded alpine mountain bog: complex regeneration patterns after grazing cessation and partial rewetting by U.H. Graf, A. Bergamini, A. Bedolla, S. Boch, H. K uchler, M. K uchler, K. Ecker
- Net primary production of oil palm plantations on tropical peat by N. Wakhid, T. Hirano, A. Dariah, F. Agus

Volume 27 (2021)

- Running out of time? Peatland rehabilitation, archaeology and cultural ecosystem services by B.R. Gearey, R. Everett
- Effects of land use conversion on selected physico-chemical properties of peat in the Leyte Sab-a Basin Peatland, Philippines by S.C.P. Decena, A.O. Arribado, S. Villacorta-Parilla, M.S. Arguelles, D.R. Macasait Jr.

Editor-in-Chief

- Dr Olivia Bragg, Department of Geography, University of Dundee, United Kingdom
- Dr Sabine Jordan, Department of Soil and Environment, Swedish University of Agricultural Sciences, Uppsala (Deputy)

Mires and Peat - the scientific journal of IPS and IMCG. Submit your paper. www.mires-and-peat.net

Peatlands with a warm-hearted attitude

Edward Struzik: *Swamplands. Tundra Beavers, Quaking Bogs, and the Improbable World of Peat*. Island Press 2021. 297 p.

In principle, every book dealing with mires and peatlands has to be greeted with appreciation. The natural peatlands (a special category of organic

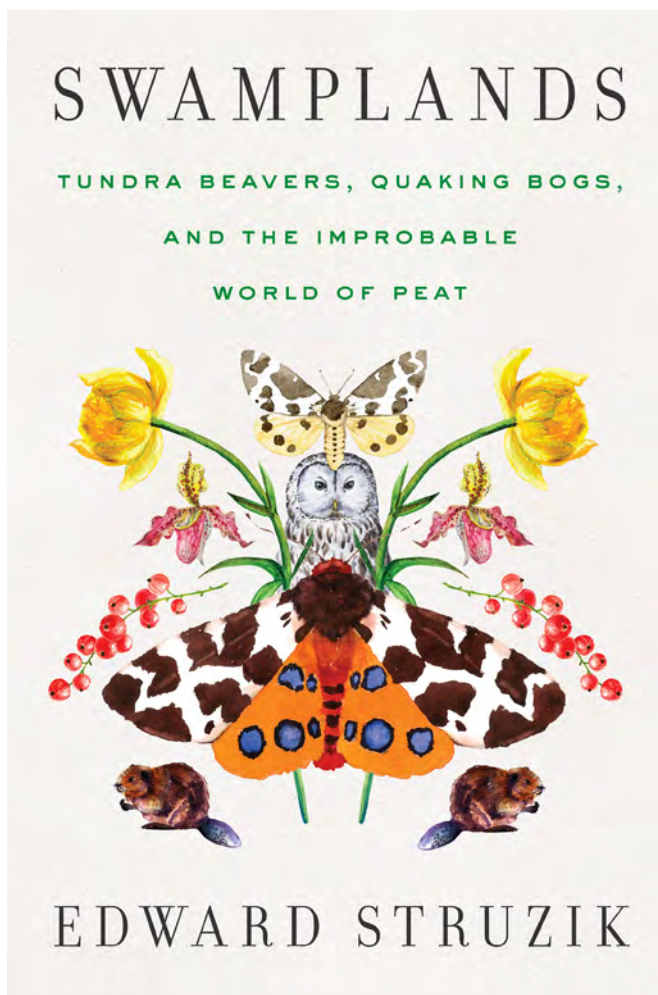
soils) are unique landscapes and ecosystems which are not very well known to people in general. Thus, more information written in an attractive and enthusiastic form is highly welcome.

It was an exciting moment to open Edward Struzik's book. The fanciful front cover didn't give any hint as to what would be the author's approach to the fascinating world of swamps, fens, bogs, muskegs... Would the reading experience ahead betray a novel, textbook or scientific monograph?

Flicking through the last 30 pages gave a first impression of a real non-fiction book provided with a list of references (headed as Notes, p. 267-282) and a subject index (p. 285-296). However, after reading the book more thoroughly this assumption - at least for me - turned out to be a failure. The content seems rather to be somewhere between a science-based textbook and a number of essays written by a person inspired by the biological diversity of mires and peatlands.

The *Preface* of the book provides a personal background behind the idea to compile a book on swamplands. It is evident that Edward Struzik did not start writing the book at an empty table. The idea had ripened during his more than 30 journeys through diverse peatlands in different parts of the world, with the emphasis, however, being on the North American continent and the Arctic.

He had been lucky enough to make these visits alongside scientists whose expertise is precisely in the diverse fields of mire ecology. The target group



of the potential readers of *Swamplands* is not, however, too well outlined.

The Introduction is probably the most important part of the book, providing the terms to be used later in the discussion. In general, the heavily varying nomenclature related to different kinds of peatland sites is not easily adopted. The author does not succeed very well: the conceptual contents of the terms used in the book may not become clear to those unfamiliar with the functioning of a living ecosystem accumulating peat. The diverse but more or less systematic framework within which natural peatland ecosystems have been classified and named by peatland ecologists is hardly obvious to the reader. For instance, the term *mire*, which in current science specifies a wet or water-logged organic soil supporting a living ecosystem accumulating peat, is dismissed.

The book is divided into 13 chapters. According to the chapter headings the peatlands, their origin and use are described within a frame of wide and varying examples - disconnected to each other in any systematic approach. The reader is most obviously encouraged to follow this order and adopt the author's enthusiasm. On the other hand, the reader may, of course, consider only the chapters covering her/his own interest.

As mentioned, the book includes a separate, unnumbered chapter titled Notes. This provides a list of references by chapter to the original research papers or sources of information marked with superscript numbers in the text. It is a pity that the text uses superscripts too seldomly, which means that the reader is steered quite sparsely to the original source of information and facts. For a science-oriented person this turns out to be far from a reader-friendly approach. Verifying even some of the most interesting statements is often impossible. Believe them or not, that's up to the reader!

Over the almost 300 pages the writer himself is the one who travels, walks and paddles mostly across the continent and Arctic isles of North America making observations. He seems to be an extroverted person who likes to get along with peatland lovers, especially scientists. The names of interviewed individuals and often their affiliations and research institutions as well are usually

mentioned in the text. Their knowledge seems to be as important as the written information in the referred books and scientific articles. But why are these authorities not listed at the end of the book?

The book carries the same shortcoming as many American non-fiction books in general in the field of nature: the plants and animals are described only by their common names. I would have appreciated if the scientific names had also been presented in parentheses or in a separate list at the end of the book. A European reader may never have heard of a plant specimen, but the family name used in the taxonomy would provide an important hint.

Even after careful reading it seems to be impossible to guess if the author aims at non-fiction, a magazine report or novel style. Perhaps this kind of judgement is not even necessary. The literal style is obviously somewhere in between. Like a mire: "Not land or water, but water and land sharing dominance."

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To order the book visit <https://islandpress.org/books/swamplands>; see also PI 4.2021.





IHC 2022
31ST INTERNATIONAL HORTICULTURAL CONGRESS

14-20 AUGUST 2022
CONGRESS CENTRE
ANGERS-FRANCE



The International Horticultural Congress (IHC) is the most important scientific event organised every four years since 1959 in the fields related to Horticulture* under the auspices of ISHS (**International Society for Horticultural Science**). ISHS is a truly global network comprising over 7,000 members. Its aim is to promote and foster research and education in horticultural science and to facilitate cooperation and knowledge transfer on a global scale through events and publications. In a different continent every 4 years (...2010 Lisbonne - 2014 Brisbane - 2018 Istanbul...), IHC regroups many divisions and commissions-symposia.



150
countries

Over
3000
delegates

Every
4 years

* **Horticultural crops**, raw or processed : fruit, vegetables, aromatic and medicinal plants, seeds and roots, ornamental plants, landscaping, vineyard.

Spirit of 31st edition

REACH A HIGH SCIENTIFIC LEVEL

With a unique opportunity to gather, meet and debate on the global topics:

- Competitiveness and skills for the Horticultural sectors
- Food, health & well-being,
- Sustainability of production systems,
- Adaptation to climate change and mitigation solutions



CONNECT AND MAKE VALUE FROM THE TRIPTYCH RESEARCH – EDUCATION – INDUSTRY

The IHC2022 will be an opportunity to boost links between **Research, Education and Industry** in order to **facilitate** the transfer and application of research for industry. It is also the place to **motivate** and encourage young minds in Horticulture for the future.

DEVELOP INTERNATIONAL COLLABORATION, IN PARTICULAR BETWEEN SOUTH AND NORTH

Promote experience-sharing by bringing together different types of Horticulture.



Program

During one week, participants will discover and interact in plenary sessions, Symposia, networking exhibition, user-friendly social program and technical tours.

14 - 18 AUGUST IN ANGERS CONGRESS CENTRE	&	19 - 20 AUGUST
Plenary sessions 25 Symposia Workshops Meetings Exhibition		Technical and touristic post tours
Social program Side events		

Participants

IHC2022 will gather around **3,000 participants**, **ISHS' members and non-members** from all over the world:

- Scientists,
- Technicians,
- Students,
- Consultants,
- Engineers,
- Growers,
- Professionals from industries,
- Representatives of trade and consumer organisations,
- Medias
- Policymakers
- And other professionals.

Peat and Peatland Events

Cancellations or changes of dates due to Covid-19 possible. Check the event websites for updates!

H2020 Merlin All Partner Meeting
29 - 30 March 2022 via Webex
<https://project-merlin.eu>

Science Symposium PERG & SER-EC
Université Laval, Quebec City, Canada
6 - 7 April 2022
<https://gret-serec-symposium.org>

IPS Executive Board Meeting 126
11 April 2022 MS Teams

SCS-CSPMA Peat Certification Webinar
13 April 2022 online
<https://bit.ly/370vXEM>

H2020 Merlin First Peat Extraction
Stakeholder Round Table
25 April 2022
<https://project-merlin.eu>

Convention on Biological Diversity COP15/2
Kunming, China
25 April - 8 May 2022
www.cbd.int/meetings/COP-15

Finnish Peatland Day Seminar
Peatlands in a Changing Society
Helsinki, Finland
20 May 2022
www.suoseura.fi

Third World Peatlands Day
2 June 2022 online
#worldpeatlandsday

IPS Annual Assembly of National Representatives
8 June 2022 MS Teams 3-5pm EEST
www.peatlands.org

31st International Horticultural Congress
Angers, France
14 - 20 August 2022
www.ihc2022.org

AsiaFlux Conference
The Nexus of Land Use Change, Ecosystem &
Climate: A Path Towards SDGs
Kuching, Sarawak, Malaysia
20 - 22 September 2022
www.asiaflux2022.com

Irish Peatland Society
Seminar and Excursion
11 - 13 October 2022
www.facebook.com/Irish-Peatland-Society-190659956823

UNFCCC COP27
Sharm el-Sheikh, South Sinai, Egypt
7 - 18 November 2022
<https://unfccc.int>

RE3 & IPS Annual Convention
Québec City, Canada
11 - 15 June 2023
<https://re3-quebec.org/en>

17th International Peatland Congress
Changchun, China
5 - 11 August 2024

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More at: www.peatlands.org/events



Next issue...

You are welcome to write!

Please send your manuscript (500-2000 words, A4, Arial, no full cap lines, with author contact details, language proofread if possible, e.g. www.englishproofread.com), photos and illustrations (separate jpg files with the names of the photographers, you need to have copyrights and persons' consent) and advertisements (pdf files, prices according to Media Kit) to susann.warnecke@peatlands.org.

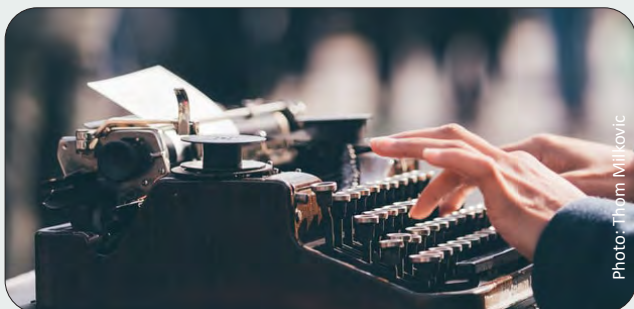
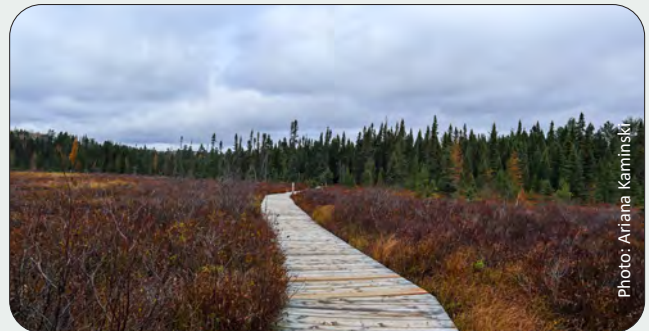
Submission deadline: PI 2.2022: 30 May

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Results of the Annual Assembly
of the IPS and new
Executive Board

RE3 in Canada 2023 - what can
we expect and how you can
get involved



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