



GREIFSWALD
MIRE
CENTRE

2nd International Conference on
the Utilisation of Wetland Plants

RRR2017

Renewable Resources from Wet and Rewetted Peatlands

September 26th - 28th 2017
Greifswald, Germany

IMPORTANT DATES	2017
Abstract submission	February 28 th
Notification of acceptance	April 15 th
Early bird registration deadline	June 1 st
Registration deadline	August 15 th





Welcome message

In the light of the great potential of peatland rewetting for climate change mitigation, innovative land use concepts for wet peatlands are crucial.

The first RRR conference on the utilisation of wetland plants (paludiculture) was held in 2013 in Greifswald. The partners in the Greifswald Mire Centre warmly invite you to continue this dialogue and to use the 2nd RRR conference as a platform for exchange.

Franziska Tanneberger, Hans Joosten & Greta Gaudig

Save the date!

The use of wetland biomass has a long tradition in human history and has been revived by global research activities on renewable resources. This conference brings together the various actors from research, governance and practice that deal with the utilisation of wetland plants. The focus is on paludiculture, i.e. agriculture and forestry on wet or rewetted peatlands. The main objectives of the conference are building and fostering networks, exchanging experience and information as well as identifying research demands. Therefore, this conference addresses scientists, land owners, land users and environmentalists alike.

Scope of the conference

The production and utilisation of wetland biomass offers manifold opportunities to address the increasing and diversifying demand for biomass and can reduce the competition between biofuel and food production. Wetland biomass can substitute fossil resources as a raw material for manufacturing and industry and for energy production, using both traditional and new processing lines and techniques. The cultivation and exploitation of reed plants like common reed, sedges, reed canary grass and cattail, of tree species like alder or of peatmoss (Sphagnum farming) can provide sustain-

able land use options for peatlands. The rewetting of degraded peatlands for paludiculture reduces greenhouse gas emissions and restores many other ecosystem services like nutrient removal, water retention and habitat provision.

Key topics

- Species: productivity, genetics, physiology
- Biomass to product
- Greenhouse gas emissions and other climate effects
- Biodiversity
- Nutrient cycling, retention and removal
- Water retention and flood control
- Economics & life cycle assessment
- Legal framework: incentives & constraints
- Case studies

Share your research findings!

We invite you to submit an abstract for oral or poster presentation on the key topics. See www.rrr2017.com for details.

Special issue in Mires and Peat

We provide the possibility to publish suitable conference contributions in a special issue in the peer-reviewed internet journal Mires and Peat.

Subscribe via email to the conference updates: info@rrr2017.com

The organisation of the conference is supported by the Federal Minister of Education and Research under Project Number 031A545.



Programme & details

Presentations, discussions, posters and excursions will allow you to share and widen your knowledge. All poster presenters will have the opportunity to give a short introduction to their topic.

Registration fees

- Early bird 150 €
- Regular 200 €
- Reduced 100 €
- Excursions 25/50/75/100 €

Support

Please contact us if you have problems financing your conference visit.

If you are interested to provide financial support to the conference, please contact info@rrr2017.com.

Exhibition

We provide space for contractors, manufacturers and any other stakeholders to present their relevant products and projects at an indoor and outdoor exhibition. For details please contact info@rrr2017.com.



Conference venue & contact

University of Greifswald
 Campus Loefflerstraße
 Loefflerstraße 23,
 17489 Greifswald, Germany

Email: info@rrr2017.com
www.rrr2017.com

Conference week

In September 2017, the Greifswald Mire Centre hosts a conference week on paludiculture. It includes a national conference, excursions, an international conference and an international workshop on Sphagnum farming.

Monday Sept. 25 th	Tuesday Sept. 26 th	Wednesday Sept. 27 th	Thursday Sept. 28 th	Friday Sept. 29 th	Saturday Sept. 30 th
National conference	Excursions	International conference	International conference	International workshop	International workshop
Paludiculture in Germany	Rewetted peatlands & biomass use	RRR2017 Key notes & sessions	RRR2017 Sessions & discussions	Sphagnum farming	Sphagnum farming
Greifswald German	N-Germany English & German	Greifswald English	Greifswald English	NW-Germany English	NW-Germany English



Prof. Dr. Hans Joosten

Hans Joosten studied biology and worked as researcher and policy officer in the Netherlands. Since 1996 he leads the Department of Peatland Studies and Palaeoecology of Greifswald University (Germany), since 2008 as an Extraordinary Professor. A key topic of his research group is the development of paludiculture (a term he coined in 1998). In 2016 he, together with Wendelin Wichtmann and Christian Schröder, edited the first textbook about paludiculture. Hans Joosten is Secretary-General of the International Mire Conservation Group and since 2009 intensively involved in UNFCCC and IPCC, especially with respect to emissions from organic soils, and in FAO in advancing climate-responsible peatland management. In 2013 he was awarded the European CULTURA Prize for Sustainable Land Use, and the German Federal Research Award Sustainability for his project Vorpommern Initiative Paludiculture.



The contribution of paludiculture to climate change mitigation and adaptation

Globally, drained peatlands are responsible for 5% of all anthropogenic greenhouse gas emissions. In 50 countries drained peatlands emit > 10 %, in 25 countries even > 50 % compared to national emissions from fossil fuels and cement. Therefore, peatlands must play a major role in reaching the targets of the Paris Agreement. The root cause of peatland emissions lies in agriculture, which had its cradle in steppes and semi-deserts and consequently transforms mires into dry landscapes. The results are everywhere the same: gigantic greenhouse gas emissions and other forms of severe environmental damage. Sustainable utilisation of peatlands appears only to be possible under wet conditions. Paludiculture aims at reducing drainage-induced emissions, preserving the peat body as a sustainable base of production, while generating marketable products. The keynote gives an overview of climate change mitigation and adaptation perspectives in various parts of the world, discusses legal, political, and economic obstacles and challenges, and presents a way forward for the implementation of paludiculture as an important climate change mitigation and adaptation strategy.

Prof. Dr. Ab P. Grootjans

Ab Grootjans worked at the University of Groningen between 1975 and 2016 and at the Radboud University Nijmegen between 2007 and 2017. His main field of expertise is eco-hydrology of wetlands. He dealt with projects ranging from eco-hydrological approaches on the landscape scale to very detailed research on the habitat scale. For example, he worked on the restoration of small dune wetlands along the Dutch and German coast and on developing new strategies for a more natural and dynamic coastal development. His work on the restoration of damaged peatlands helped improving restoration activities in various parts of the world including the former GDR, Slovakia, Latvia, Russia, Ireland, Tierra del Fuego, Japan, Australia and South Africa. He has also been active in the Dutch Knowledge network of researchers and managers (OBN) aimed at developing restoration projects in the Netherlands (1990-2015).



Peatland restoration and paludiculture for clean and safe water

The area of rewetted peatlands in Europe is still small, but increasing - mainly because agricultural and silvicultural use of many peatland areas is economical less interesting. In many EU countries the continuation of agricultural use in such areas is driven by subsidies. In other words, citizens that do not directly profit from the intensive drainage of wetlands are paying the bills. And the costs of maintaining agricultural use in drained peatlands are increasing due to subsidence of the peat soils. That is why in densely populated areas, such as in the Netherlands, such areas are now used to prevent flooding in cities due to more intensive rain events during summer. The effects of these global change initiated events can be reduced by storing large amounts of surface water in nature areas and in low-lying agricultural areas on peat. This calls for alternative use of such areas. Paludiculture is by far the most sensible thing to do; use these areas wet. However, new investments in infrastructure and in modern equipment to harvest these areas are urgently needed. I propose that money that is now spent on continuing the environmental unfriendly way of land use (subsidies to both farmers and nature protection agencies) has to be transferred to organisations and private companies that are willing to use peatlands in a more sustainable way.

Faizal Parish

Faizal Parish has been the Director of the Global Environment Centre, a Malaysian non-profit organization working throughout East and Southeast Asia on forest and peatland management, biodiversity, water resources and climate change since 1998. He is originally from the UK but is currently a Malaysian Permanent Resident and has been living in Malaysia since 1983. He is a wetland ecologist with more than 30 years' experience in assessment and management of peat swamp forests, mangroves and river systems. He has worked with the ASEAN Secretariat since 2000 to establish the ASEAN Peatland Management Initiative and ASEAN Peatland Management Strategy 2006-2020 (APMS) and the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) – all key ASEAN initiatives to conserve peatland biodiversity and ecosystems. Faizal Parish has been actively working on peatland and biodiversity conservation in South East Asia since 1983, leading assessments of wetland biodiversity in many ASEAN Member States. He coordinated a global assessment on peatlands biodiversity and climate change in association with CBD from 2003-2008, and worked on restoration and management of peat swamp forests for more than 25 years. He was the Co-chair of the Roundtable of Sustainable Palm Oil (RSPO) Peatland Working Group (2009-2012) and developed the RSPO Manual on Best Management Practice for management and rehabilitation of natural vegetation associated with oil palm cultivation on peat. He is a member of the International Mire Conservation Group for more than 10 years.



Climate-smart peatland use to improve livelihoods

Globally large areas of peatland have been targeted for conversion to agriculture and intensive forestry activities which have been one of the main drivers for peatland degradation. Peat extraction for energy and horticulture is another significant but smaller scale use. In Southeast Asia, there used to be nearly 25 million ha of peatland which was naturally vegetated with diverse peat swamp forest with more than 250 species of trees many of which have significant socio-economic value. More than 70% of this peatland has been heavily exploited and degraded and large areas converted to monoculture plantations of Oil Palm and Acacia. Many areas have been cleared, drained and burnt but subsequently abandoned due to inappropriate land development approaches. Some 10-15 million ha of degraded peatland is found in the region with more than 4 million ha burnt repeatedly in recent years - constituting one of the most important sources of GHG emission globally. The rewetting and rehabilitation of these peatlands provides a major opportunity for expansion of paludiculture in the region. There are more than 50 species of tree that are potentially suitable to be cultivated in re-wetted peatlands - but large scale cultivation is still at a relatively early stage. The presentation will highlight initial progress and future opportunities and challenges for paludiculture in the region.

Day trips

Vegetation, greenhouse gas balance and biomass use on rewetted peatlands near Malchin

Guides: Dr. Wendelin Wichtmann & Christian Schröder (+ local guides/farmers)

Highlights: Vegetation types and the greenhouse gas emission site type (GEST) approach in polder Randow-Rustow, boat trip on Peene river, mown rewetted peatland sites near lake Kummerower See, rare wetland plants favoured by mowing, the pioneering paludi-biomass heating plant in Malchin.

Registration fee: 75 €



Land use history, mowing machinery and biomass use for building material at Peene river mouth

Guides: Dr. Franziska Tanneberger & Tobias Dahms (+ local guides/farmers)

Highlights: Harvesting machinery for reed cutting (tracked vehicles, vehicles with balloon tyres), harvesting sites for thatch, drained peatland used as grassland, large formerly drained peatland flooded and abandoned after dike break, cormorant colony and white-tailed sea eagles, tourist house insulated with cattail and thatched with reed, boat trip, light tractors for mowing wet peatlands, weaving loom for the production of mats from reed.

Registration fee: 75 €



Peatland rewetting, land use and birds in Lower Peene river valley

Guides: Dr. Nina Seifert & Dr. Cosima Tegetmeyer (+ local guides/farmers)

Highlights: Natur park visitor centre in Stolpe, land use history, implementation of a large-scale peatland restoration project and designation of new nature reserves in 20,000 ha, breeding and migrating birds on flooded former polders near Anklam, organic farming and local marketing along the river valley, large-scale compensation project on peatland restoration and low-intensity grazing with horses and cattle, motor mower with ultra-wide cutter bars used for conservation management.

Registration fee: 50 €



Peatland research on mown and grazed rewetted peatland in Recknitz and Trebel river valleys and on Darss peninsula

Guides: Anke Nordt & Andreas Haberl (+ local guides/farmers)

Highlights: Study sites of the major research project on matter dynamics in rewetted peatlands of Greifswald and Rostock universities (funded under the regional excellence initiative), sites rewetted c. 15 years ago in a LIFE project, sites managed and monitored for biodiversity conservation, site-adapted mowing equipment, grazing sites with water buffalos on Darss peninsula, large flocks of migrating cranes.

Registration fee: 50 €



Paludiculture on rewetted bogs near Oldenburg

Guides: Matthias Krebs (+ local guides/farmers)

Highlights: Sphagnum farming site, sundew cultivation and use opportunities for medicine or food, land use opportunities on bog grassland, peat extraction site, horticultural trials.

Registration fee: 100 €



All day trips are available in both English and German language.

Half Day Trip

Paludiculture plants and salt meadows near Greifswald

Guides: Susanne Abel, Claudia Oehmke and John Couwenberg

Highlights: Paludiculture plants in the Botanical garden of Greifswald University; excursion to salt meadows "Karrendorfer Wiesen", study site of the large research project on matter dynamics in rewetted peatlands of Greifswald and Rostock universities, rewetted coastal flood peatland.

Registration fee: 50 €





Conference venue

Greifswald is surrounded by reeds. Along the Baltic coast, the inland lake shores and the streams in ice marginal valleys, thick peat deposits illustrate the lasting relation of reeds with the land of Mecklenburg-Vorpommern. Therefore, also peatland studies have a history of 200 years in Greifswald. Over the last 20 years research focussed i.a. on peatland restoration and sustainable peatland utilisation.

The Hanseatic city of Greifswald

The city of Greifswald, situated in northeastern Germany at the Baltic Sea coast, is a founding member of the Hanseatic League of Towns. It is situated amidst extensive forests, peatlands, and lakes, including seven national parks and biosphere reserves and many large restoration projects. The market square with its medieval churches offers the visitor one of the most beautiful Northern German market place ensembles.



Host institution



**GREIFSWALD
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The Greifswald Mire Centre is the interface between science, policy and practice in all peatland related questions – locally and globally. It unites some 50 peatland experts in one place. Partners in the Greifswald Mire Centre are the University of Greifswald, the Michael Succow Foundation and DUENE e.V. The Greifswald Mire Centre offers science-based solutions for social challenges related to peatlands such as climate protection, biodiversity conservation and sustainable use. www.greifswaldmoor.de

Partners in the Greifswald Mire Centre

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