



GREIFSWALD
MIRE
CENTRE

ANNUAL REPORT 2018



June 2019

Introduction

The Greifswald Mire Centre (GMC) is a cooperation between the University of Greifswald, Michael Succow Foundation, and the Institute of Sustainable Development of Landscapes of the Earth (DUENE e.V.). The GMC was founded in early 2015 and is based on a Memorandum of Understanding. This annual report summarises the development of GMC during its fourth year of existence: It analyses key progress with regard to the focal areas of GMC, describes the development of the GMC's (infra)structure, and lists chronologically milestones in the spheres of science, implementation and policy advice.



Pictures: p. 1, 10, 11, 13, 15,16, 18, 20, 21, 22, 24, 26 Greifswald Mire Centre, p. 9 Tilmann Silber, p. 17 Espen Eichhöfer (BMU), p. 19 PaludiMed GmbH, p. 23 A. Piegenschke, p. 25 Henning Lipski

A little closer to the goals

Important steps towards the GMC's goals

The vision of the Greifswald Mire Centre is a world, in which peatlands are recognised and understood as vital and vulnerable systems, natural peatlands are conserved, degraded peatlands are restored, and any use of peatlands is sustainable. The GMC sees itself as innovator and originator in solutions for peatlands, and as interface between science, policy and practice. In its 2018-2022 strategy goals have been formulated and assigned to four main topics. In close cooperation between science, implementation, and advice, several projects have been conducted in 2018, and important progress towards reaching GMC's goals has been achieved.

Main topic: Climate change

In the project 'German Peatland Protection Dialogue - Impulses for Climate Protection, Biodiversity and Sustainable Land Use on Peatlands' - short 'Peatland Dialogue' (German: 'MoorDialog'; 2015-2019) – networks of actors at federal, state and municipal level have been created and strengthened, knowledge has been transferred, and solutions have been discussed in order to intensify peatland conservation in Germany. Key results of the project were presented at the final conference in Berlin on 26th October 2018 at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety with the participation of actors from agriculture, water management, nature conservation, science and politics. The GMC's **transformation pathway** towards minimum emissions from peatlands by 2050 makes it clear that in Germany about 50,000 ha must be re-wetted annually with immediate effect in order to achieve the goals of the German climate protection plan and international commitments. A large part of the land must be transferred from 'dry' to 'wet' agriculture and forestry. The conference offered about 170 participants a platform for exchange and discussion. In the end it was clear that "Peatlands must be wet" can only be achieved with a clear political framework, financial incentives and compensation, courageous entrepreneurs and sound accompanying scientific research.

With the 'MoorDialog' project and the resulting discussions, statements and cooperations, the Greifswald Mire Centre has contributed nationwide to the increased perception of peatlands as climate protectors. In its coalition agreement of 2018, the Federal Government laid down the development of a peatland protection strategy and a peat protection strategy to reduce peat consumption in horticulture. In order to implement these strategies, among others, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety set up the new unit N II 6 'Precautionary Soil Conservation, Peatland Conservation' in 2018.

The Greifswald Mire Centre has also continued its activities internationally. Due to their extent and the effects of existing or threatening peat-consuming use, tropical peatlands are getting more and

more attention. As a founding member and partner in the Global Peatlands Initiative, the GMC was committed to the signing of the **Brazzaville Declaration** on the Conservation and Sustainable Use of the World's Largest Tropical Peatland in the Congo Basin by the Democratic Republic of the Congo, the Republic of the Congo and Indonesia. At the **UN climate summit** in Katowice and the **Global Landscapes Forum** in Bonn, the importance of peatlands and of their sustainable use was highlighted in side events with the participation of the GMC.

The work, expertise and strength of the GMC are increasingly recognised. As a member of the International Peat Mapping Team, the Greifswald Mire Centre, together with German and Indonesian partners, has won the **Indonesian Peat Prize**, endowed with 1 million US dollars, for the best peatland mapping method.

Main topic: Biodiversity

With the '**Aquatic Warbler Conservation Handbook**', a longstanding book project was completed in spring 2018 and, together with over 40 authors from Europe and Northwest Africa, the first comprehensive monograph on the ecology and protection of this globally threatened flagship species for fens was published.

The project '**KLIBB**' ('Climate-friendly, biodiversity-promoting management of fen soils'), funded by the Federal Agency for Nature Conservation (BfN), is developing a paludiculture land classification in three peatland-rich federal states of Germany, following the example of Mecklenburg-Vorpommern with its first technical strategy for paludiculture developed by the GMC in 2017. The project also summarises the findings on biodiversity and paludiculture and, with concrete proposals for measures, will enable the course to be set for targeted agri-environmental measures for paludiculture in Germany.

Main topic: Sustainable use

Ten projects were carried out at the Greifswald Mire Centre in 2018 to research and implement the sustainable use of peatlands. Within the framework of the 'MoorDialog' project, numerous information events and workshops were held to stimulate sustainable peatland use in Germany.

The scientific findings on the cultivation of sundew are so comprehensive that the **PaludiMed GmbH** started as the first spin-off from the GMC. In 2018, it started to establish the largest European sundew cultivation area in Mecklenburg-Vorpommern in order to be able to harvest sundew as a raw material for the production of medicines in the future.

In growth

Development of the GMC's infrastructure

An outstanding milestone for the continued existence of the Greifswald Mire Centre is the permanent safeguarding of peatland research at the University of Greifswald through the establishment of the first **Chair of Peatland Sciences** in Germany. In December 2018, the University of Greifswald and the state of Mecklenburg-Vorpommern signed an agreement to this end. The professorship receives financial support from the Stifterverband der deutschen Wissenschaft and the Michael Succow Foundation as partner in the Greifswald Mire Centre.

In 2018, 28 externally funded projects were carried out at the Greifswald Mire Centre (Table 1). Most of the projects can be assigned to the main topic 'sustainable use'.

Table 1. Overview on projects at the GMC in 2018, assigned to main topics and work spheres. For details on the projects see <https://greifswaldmoor.de/projects.html>.

Main topic	Research	Implementation	Advice
Climate change	<ul style="list-style-type: none"> • REPEAT • WETSCAPES • Peatlands, permafrost and phosphate 	<ul style="list-style-type: none"> • PeatRus 	<ul style="list-style-type: none"> • MoorDialog • Valuing of climate and nature conservation services • INVESTIGATE • Environmental dialogue Caribbean coastal peatlands • International Peatland Carbon Standard
Biodiversity	<ul style="list-style-type: none"> • KLIBB • BaltRap 	<ul style="list-style-type: none"> • World Heritage nomination Kolchis • Restoration works on MSS-owned land in NE-Germany (Binsenberg, Mannhager Moor, Karrenderfer Wiesen, Sernitz) 	<ul style="list-style-type: none"> • Aquatic Warbler Book
Other ecosystem services	<ul style="list-style-type: none"> • CLEARANCE 	<ul style="list-style-type: none"> • MeerGewinn • DESIRE Seed money 	
Sustainable use	<ul style="list-style-type: none"> • MOOSWEIT • MOOSzucht • CINDERELLA 	<ul style="list-style-type: none"> • MORGEN • Test planting of Cattail • VorpommernConnect • Plant3 • ReedBase • BOnaMoor 	<ul style="list-style-type: none"> • Demonstration sites Paludiculture Mecklenburg-Vorpommern • Paludiculture in the Baltics

GMC activities took place in 2018 on all **spatial levels**: locally in and around Greifswald and in Vorpommern, regionally in Northern Germany, nationally throughout Germany to internationally in Europe, in the Caribbean, the Congo Basin, in Southeast Asia and at global conferences (Fig. 1).

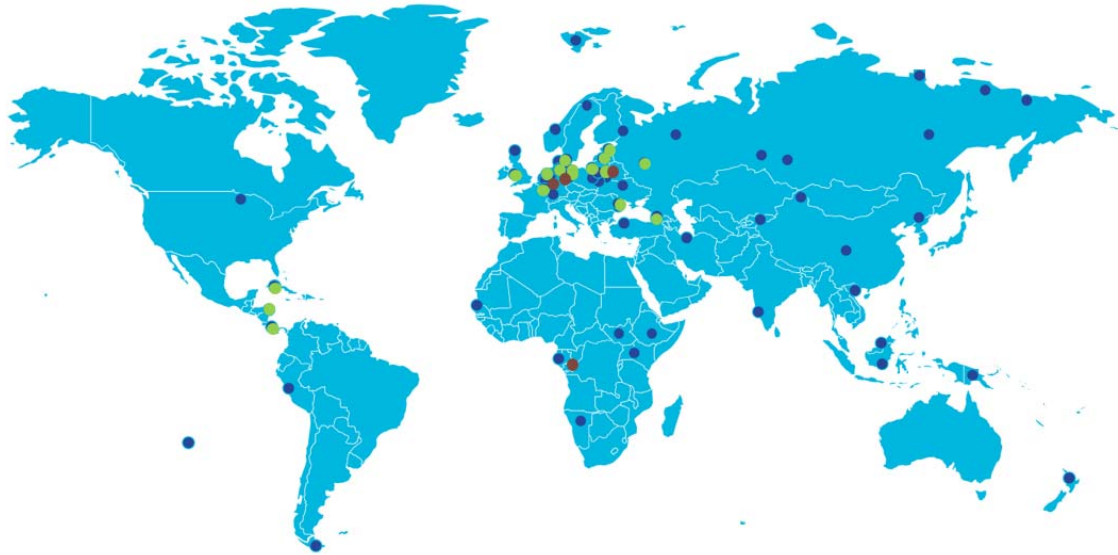


Fig. 1. Map of GMC activities in 2018 (green = projects 2018, brown = other activities 2018, blue = projects/activities in other years)

Since January 2018, the **web platform** www.moorwissen.de, developed within the framework of the MoorDialog project, has been online. It presents comprehensive information on peatlands, presents their significance for climate protection and explains paludiculture. In addition, tools, numerous maps and a network platform are offered. The web platform serves the transfer of knowledge, prepared for different actors.

The **peatland library PeNCIL**, another database of the Greifswald Mire Centre, currently contains around 25,000 publications on the subject of peatlands. The library is heavily frequented and is used by scientists, students and other interested parties worldwide. This 'liveliness' is perceived, so that increasingly external private individuals donate their libraries to PeNCIL. In August 2018, R.S. Clymo (Queen Mary University of London, Great Britain), one of the world's most renowned peatland researchers focusing on bog ecology and peat moss, handed over a large part of his private library to PeNCIL.

A **mesocosm facility** for experimental research on bog plants was established in 2018 with funds from the European Structural and Investment Fund and used in a first experiment (REPEAT project) with sedges from the Netherlands, Germany and Poland. Important findings for the construction were collected; in 2019 the extension into an automatic measuring system followed.

In order to exchange information in an interdisciplinary way, to find out the intersections, to sound out co-operations or to broadly discuss peatland-related topics, guests are invited to the monthly GMC meetings to report on their activities and projects. In 2018, the following **lectures** were held and discussed at the GMC meetings:

- Prof. Dr. Vera Luthardt (HNE Eberswalde, Germany): Long-term monitoring of peatlands and evaluation of mire conservation measures
- Jenny Hammerich (HNE, Eberswalde, Germany): Indicators to assess mire-specific biodiversity in fens in NE-Germany
- Prof. Dr. Bettina Matzdorf (ZALF): ERA-Gas project PEATWISE
- Prof. Dr. Volker Beckmann (University of Greifswald): CO₂ neutral university – what has been achieved so far
- Dietmar Weier & Antje Johann (District Vorpommern-Greifswald, Germany): Planning of wind farms in Friedländer Große Wiese peatland
- Prof. Dr. Wiktor Kotowski (University of Warsaw, Poland): With functional plant ecology into fen resilience, conservation and restoration – learning from a stressed carrot
- Prof. Dr. Christine Alewell (University of Basel, Switzerland): Current peatland research activities at University of Basel
- Gunnar Wobig (LEKA, Germany): The Energy and Climate Protection Agency of Mecklenburg-Vorpommern
- John Couwenberg & Hans Joosten (GMC): Evaluation of peatland restoration works funded by Krombacher in the Sebangau National Park, Central Kalimantan, Indonesia

In addition to the speakers at the GMC meetings, other **visitors** from politics and science informed themselves personally and locally about the Greifswald Mire Centre in 2018:

- H.E. Dr. Arif Havas Oegroseno, Ambassador of Indonesia in Germany
- Patrick Dahlemann, Parliamentarian State Secretary for Vorpommern, Germany
- Thomas Krüger, Chairman of the SPD State Parliamentary Group Mecklenburg-Vorpommern
- Dr. Ulf Hauke, Federal Ministry for Environment, Nature Conservation and Nuclear Safety, unit 'Precautionary Soil Conservation, Peatland Conservation', Germany
- Prof. Dr. Luca Bragazza, Swiss Federal Institute for Forest, Snow and Landscape Research, Lausanne, Switzerland
- Uladzimir Malashevich, APB Birdlife Belarus
- Anton Hofreiter, Chairman of the Green Parliamentary Group, Germany.

As a result of many projects at the Greifswald Mire Centre, reports and information on individual aspects of peatlands are produced. The **Proceedings of the Greifswald Mire Centre** (ISSN 2627-910X) was initiated to make these publicly available and quotable. The first two volumes were published online in 2018 (Wichmann et al. 2018, Barthelmes et al. 2018).

Significant events at a glance

January

GMC touring exhibition at the EFMK

12/01/2018 From 13th January to 28th February 2018, the touring exhibition about peatlands, climate protection and paludiculture of the Greifswald Mire Centre can be seen in the EFMK in Wagenfeld, Lower Saxony. On the 28th of January the event "Climate saviour peatland" offered lectures by experts, including one by Susanne Abel (GMC) on "Peatlands must be wet: How peatlands contribute to climate protection through rewetting and paludiculture".



www.greifswaldmoor.de

Voluntary financing of peatland protection

27/01/2018 What voluntary financing instruments are there for peatland protection, how can these be further developed, and what are the new ideas out there? These questions were addressed by 24 invited experts in the workshop 'Future development of voluntary financing instruments for climate protection measures using the example of peatland protection'. The participants provided experience from the fields of development, marketing and implementation, as well as from science, nature conservation and public authorities. The workshop was organised as part of the '[MoorDialog](#)' project and took place on 25th and 26th January 2018 near Berlin. The results will be incorporated into a [brochure](#).

WETSCAPES colloquium at the German Aerospace Center

31/01/2018 On 31st January the 3rd [WETSCAPES](#) Colloquium took place at the German Aerospace Centre (DLR) in Neustrelitz, Mecklenburg-Vorpommern. After presenting the technology for data reception, storage and application at DLR to the group, there were exciting discussions about the past and future course of the project, this time focusing on remote sensing.

February

Indonesian Peat Prize - consortium with Greifswald Mire Centre wins!

02/02/2018 Spectacular news for the scientists of the Greifswald Mire Centre at today's World Wetlands Day: The Indonesian government is awarding the [Indonesian Peat Prize](#), endowed with 1 Mio US\$ - and the Greifswald Mire Centre is part of the [winning research consortium](#) 'International Peat Mapping Team' led by Remote Sensing Solutions.



„The price gives credit to our work at the international level. It is evidence for the consortium's capacity and a chance for research, conservation and sustainable use of peatlands in Indonesia and worldwide" said Prof. Dr. Dr. h.c. Hans Joosten, peatland ecologist at the Institute of Botany and Landscape Ecology at Greifswald University. In Indonesia Joosten and his team are analysing greenhouse gas emissions, mire development and land use of peatlands since 2006. Large scale and intensive farming of palm oil and pulp wood causes large problems in Indonesia. Huge areas of peatland were drained for these monocultures. The consequences are degradation, land loss, extremely high greenhouse gas emissions and devastating peat fires. Over the last years these fires have caused thousands of deaths and enormous damages within the country and the neighbouring regions. The Indonesian government is fighting the climate damaging effects with an ambitious programme, of which the Indonesian Peat Prize is a part of.



Film about World Wetlands Day

02/02/2018 Greifswald is surrounded by 780 ha of peatland, and these can do a lot for the city: they filter water, are buffer zones for flooding, offer recreational areas and have potential for sustainable regional added value. On the occasion of the World Wetlands Day (WWD) on 2nd February, the GMC drew attention to this with the film "Magie der Moore" ("The magic of the mires") at the St. Spiritus cinema in Greifswald.

Not only for Typha pioneers: Showing what this plant can do

12/02/2018 Cattail (*Typha* spp.) can be planted and harvested in wet peatlands, provides dryness and heat as a sustainable building material, and protects the climate! The entrepreneur Aldert van Weeren ([Wetland Products](#)) and the Greifswald Mire Centre informed about this at the 'Typha Day' on 13rd February in Kamp (Mecklenburg-Vorpommern), including the harvesting of cattail. The fact that this can be used as insulation and roofing could be seen during a guided tour through a renovated guest house close to the mowing area. This innovative and local use of a renewable domestic raw material is a pioneering achievement in Northeast-Germany and attracts international interest: The Typha Day was also attended by scientists and practitioners from the Netherlands. An international network ([typha connect](#)) was promoted.

March

KLIBB starts: Combining paludiculture and nature conservation

01/03/2018 The new GMC project '[KLIBB](#) - Climate-friendly, biodiversity-promoting management of fen soils' studies and informs how benefits for nature conservation can be enhanced in paludiculture. By October 2019, the project funded by the Federal Agency for Nature Conservation develops a paludiculture land classification in three peatland-rich federal states of Germany and gathers knowledge on the effects of different types of paludiculture on biodiversity. It will also work out how undesirable developments could be avoided at an early stage and how such additional nature conservation services by farmers should be compensated financially. KLIBB is a cooperation of the University of Greifswald with the Humboldt University of Berlin (HUB) and the University of Sustainable Development Eberswalde (HNEE), all Germany.



Peatlands, measuring instruments and lots of enthusiasm: WETSCAPES introduces itself to the Minister of Education

23/03/2018 Minister of Education Birgit Hesse (Social Democratic Party SPD) visited the [WETSCAPES](#) project on 23 March as the last of the five Excellence Initiatives in Mecklenburg-Vorpommern. With her came two other members of parliament of the SPD - the Chairman of the State Parliamentary Group Thomas Krüger and the University Policy Spokesman Dirk Stamer. WETSCAPES employees from doctoral students to professors reported on fieldwork, presented their instruments, explained their first findings on rewetted peatlands and showed merchantable products of paludiculture. Thomas Krüger emphasized the importance of the topic for the country and pointed to a successful paludiculture enterprise in his constituency. At the end of the event, Birgit Hesse explained that she now understood how important peatlands are, that she sees great potential in university research and education on peatlands, and how she felt the great enthusiasm with which WETSCAPES is working together.

De la fumée sur l'eau: GPI report now in French

23/03/2018 '[De la fumée sur l'eau](#)': The Global Peatlands Initiative's report '[Smoke on Water](#)' is now available in French. A first copy was presented to the Prime Minister of the Republic of Congo Clément Mouamba during the Third Meeting of the Partners of the Global Peatlands Initiative 21st-23rd March in Brazzaville (Republic of Congo). The Greifswald Mire Centre provided substantial text, various graphs, maps and the vast majority of illustrations from peatlands worldwide.



Ministers align for protection of the Congo Basin

23/03/2018 Good news for the protection of tropical peatlands at the [Third Meeting of the Partners of the Global Peatlands Initiative](#) 21st-23rd March in Brazzaville (Republic of Congo): Ministers of the Democratic Republic of the Congo, the Republic of the Congo and of Indonesia signed

the [Brazzaville Declaration](#) for conservation and sustainable use of the world's largest tropical peatland in the Congo Basin. The peatland complex is estimated to be larger than England and to hold about 30 billion tons of carbon. This equals more than 15 years of carbon dioxide emissions from the United States. Moreover, the Congo Basin is important for the region's ecological stability and biodiversity. The Greifswald Mire Centre co-organised the meeting as a steering committee partner of the Global Peatlands Initiative.

April

EUKI workshop discussed organic soils as cross-cutting issue

06/04/2018 Greenhouse gas emissions from drained organic soils are among the largest sources from the Agriculture and LULUCF sectors in many European countries. However, reporting of drained organic soils to the UNFCCC is for many EU countries inaccurate and not fully compatible with the latest IPCC guidance. As a result, emissions reduction potentials related to organic soils are poorly addressed. The short-term project ['Improving national GHG inventories for organic soils and mitigation potential of wet land use' \(INVESTIGATE\)](#) is funded by the European Climate Initiative (EUKI) to network and prepare further activities to tackle scientific and technical issues with respect to reporting GHG emissions. At a workshop in Greifswald 5th/6th of April 2018, peatland and national inventory experts from Finland, Denmark, Latvia, Ireland, Romania and Germany discussed [recommendations for improving national inventories with regard to organic soils](#). It is planned to jointly prepare further research and policy activities at the EU level.

New handbook summarises ecology, management and conservation

14/04/2018

For twenty years the [Aquatic Warbler Conservation Team \(AWCT\)](#) is putting its effort into the threatened peatland species and there is quite some reason to celebrate. The team has compiled the [Aquatic Warbler Conservation Handbook](#) which was launched at the 20th anniversary celebration



12th-15th April in Brodowin (Germany). The book summarises the current knowledge on ecology, habitat management and conservation of the Aquatic Warbler including contributions of two GMC and long-term AWCT members – Franziska Tanneberger and Cosima Tegetmeyer. The AWCT is a small and informal network of experts for this mire species from almost all range countries – and a success story: Founded in 1998 in Brodowin by Martin Flade, who is its chairman until today, it promoted a Memorandum of Understanding for the protection of the globally threatened Aquatic Warbler (*Acrocephalus paludicola*) under the Bonn Convention (CMS), which was signed in 2003. The team has initiated 8 EU LIFE projects targeting the species' conservation as well as numerous other projects. Annual AWCT expeditions to breeding or wintering sites are a tradition since the very beginning and help to form a dedicated, inspiring team.

May

GMC touring exhibition in the BfN in Bonn

25/05/2018 From 23rd April to 24th May, the touring exhibition 'Peatlands, Climate Protection and Paludiculture' of the Greifswald Mire Centre can be seen in the foyer of the Federal Agency for Nature Conservation in Bonn. It explains the contribution that wet peatlands make to climate protection and how rewetted areas can be used sustainably. The touring exhibition is part of the 'MoorDialog' project within the framework of the National Climate Initiative.

Facts finding mission to Belarus completed



28/05/2018 A small group of peatland scientists from GMC and International Mire Conservation Group (IMCG) just returned from southern Belarus. The group has discussed water management at Zvaniec Mire, one of Europe's largest near-natural peatlands. The site holds about 25% of the world population of the globally threat-

ened Aquatic Warbler. Recently, habitat conditions have deteriorated and the site is now classified as [Important Bird Area \(IBA\) in danger](#). The group identified main directions of future monitoring and studies to improve water management. Together with experts from the Belarusian Academy of Sciences and the [Lithuanian-Belarusian LIFE project on the Aquatic Warbler](#), concrete steps and increased cooperation was agreed to better understand and protect this and other fens in Polesie region.

June

Peatland training by GMC and LUNG

12/04/2018 The training day 'Landscape ecology basics of peatland sciences' on the 7th June provided recent knowledge to some 150 employees of forest and nature conservation administration in Mecklenburg-Vorpommern. It offered practical information, free of charge, on mire typologies, mire-specific flora and fauna, vegetation and ecosystem services of peatlands. In addition, the sustainable use of wet peatland (paludiculture) was also subject of the meeting, which was organized by the GMC and the State Agency for Environment, Nature Conservation and Geology Mecklenburg-Vorpommern (LUNG).

SPD Group Chairman visits the GMC

04/06/2018 Peatlands are well known to Thomas Krüger, Chairman of the SPD Parliamentary Group of Mecklenburg-Vorpommern: His constituency from Malchin at the Kummerower Lake to Stavenhagen and Treptower Tollensewinkel is an area full of peatland. The city of Malchin is the location of the first peatland biomass heating plant, which supplies some 500 households with climate-friendly heat. During his visit to Greifswald, Thomas Krüger learned about current mire research projects at the University of Greifswald and met the Vice Rector for Research, Prof. Dr. Kathrin Riedel, and the Vice Dean of the Faculty of Mathematics and Natural Research, Prof. Dr. Gerald Kerth. In addition, employees of the Michael Succow Foundation and DUENE e.V. presented their work at the GMC. Thomas Krüger was particularly impressed by the close association of science, implementation and consulting at one location.



GMC informs about effects for humans, nature and climate

22/06/2018 Why and how peatlands need to be taken into account in the European Union's Common Agricultural Policy (CAP) from 2021 onwards has been compiled in a [briefing paper](#) by the Greifswald Mire Centre. It addresses the reform proposal for the CAP, which was submitted by the European Commission in June, and the ongoing discussions in Brussels as well as in Germany and other EU member states on the further development of the CAP. Climate protection and other environmental aspects should be in the foreground. The re-orientation of the agricultural use of peatlands offers a special potential for this: Essential are high water levels to minimize the release of greenhouse gases and to stop the loss of soil. This requires the definition of a good professional usage of peat soils as well as the targeted promotion of sustainable use of peatlands ('paludiculture') in pillars 1 and 2 of the CAP.

Information material on paludiculture

28/06/2018 Leaflets on paludiculture are now available for download in [Estonian](#), [Lithuanian](#) as well as in Latvian - here separately on [paludiculture on bogs](#) and on [paludiculture on fens](#). The information material, originally prepared by the Greifswald Mire Centre, was edited and translated by Baltic peatland experts and the Michael Succow Foundation, partner in the Greifswald Mire Centre within the project '[Paludiculture in the Baltics – climate protection by of rewetted peatlands](#)'. The project, funded within the European Climate Initiative, analyses whether drained peatland areas in the Baltic states can be rewetted and sustainably used, and - if so - which ones.



July

In the thicket of Pomeranian peatlands



01/07/2018 With the installation of further research materials from the University of Antwerp during a field campaign of the EU research project [REPEAT](#), all measurements and data collections are now outdoors. REPEAT investigates below-ground processes of biomass production and decomposition in near-natural, drained, and rewetted fens in six European countries. At the same time, the [WETSCAPES](#) research project is carrying out similar research with high spatial resolution in drained and rewetted study sites in Mecklenburg-Vorpommern.

First mire plant experiment in the new mesocosm facility

15/07/2018 In the first, still largely manual experiment in the new mesocosm facility of Greifswald University (working group Experimental Plant Ecology, Prof. Dr. Jürgen Kreyling), the EU research project [REPEAT](#) investigates above- and below-ground growth of five sedge species from three origins along a nutrient gradient. Despite the severe drought in summer 2018, the experiment could be run successfully.



August

Ambassador on paludiculture tour

03/08/2018 To see how paludiculture looks in practice the Indonesian ambassador H.E. Dr. Arif Havas Oegroseno paid a visit to Western Pomerania following an invitation of the Greifswald Mire Centre. Similar to Germany, Indonesia suffered huge environmental damage due to peatland drainage for agriculture. Today the country sees re-wetting and paludiculture as a so-



lution and is gathering information how to use peatlands wisely. The GMC took ambassador Oegroseno to drained peatlands at polder Bargischow and rewetted peatlands at Anklamer Stadtbruch. Here, Patrick Dahlemann, Secretary of State for Western Pomerania welcomed the ambassador and joined him for a visit in a dense, productive reedbed under almost tropical temperatures. In the small village of Kamp the group observed the harvesting of cattail and learnt about traditional and innovative forms of paludiculture. At the site of the Wetland Products Foundation reed cutting companies from Anklam region, Rügen island and Schleswig-Holstein together with Dutch companies specialised in mowing machinery for wetlands shared their knowledge with the guests. Patrick Dahlemann welcomed this 'peatland connection' and stressed the potential of combining environmental and socio-economic benefits by implementing peatland rewetting and paludiculture. In the cool historical buildings of Greifswald University, the prorektor for Research and International Affairs Prof. Dr. Katharina Riedel introduced the ambassador to the history and main research

topics of Greifswald University. Ambassador Oegroseno showed much interest in research cooperation and announced to explore possibilities for setting up an ERASMUS partnership. Further steps in cooperation were also discussed at [PeNCIL](#) and with the Michael Succow Foundation, where Prof. Dr. Michael Succow welcomed the ambassador.

IPBES publishes extended report

21/08/2018 The Assessment Report on Biodiversity and Ecosystem Services for Europe and Central Asia ([IPBES/6/INF/6/Rev.1](#)) was recently published as extended report by the [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services \(IPBES\)](#). IPBES is an intergovernmental body that provides politics with scientific advice, comparable to the Intergovernmental Panel on Climate Change (IPCC). Contributing authors of chapter 3 (Status, trends and future dynamics of biodiversity and ecosystems underpinning nature's contributions to people) are Hans Joosten and Franziska Tanneberger (both GMC). The report sheds light on peatland distribution and degradation using data of the GMC's [Global Peatland Database](#) and links climate destruction due to peatland degradation and biodiversity loss.

GMC, DVL and MoorFutures at the Open Day

25/08/2018 Federal Minister for Environment Svenja Schulze enjoyed rewetting a peatland at small scale. At the Open Day 2018 in the Ministry of Environment, Tobias Dahms und Monika Hohlbein (both GMC) explained how peatlands and climate protection are connected in detail. The minister and her Parliamentary Secretary of State Rita Schwarzelühr-Sutter learnt about the GMC project [MoorDialog](#) and about the urgent need for action in



the implementation of a climate-friendly, wet management of previously drained peatland sites. In particular, setting up demonstration facilities, their scientific monitoring, and removing constraining factors to wet(ter) peatland management were discussed. The GMC attracted many visitors with mires plants and products to its joint booth with the German Association for Landcare (DLV).

September

Big book donation to PeNCIL: 600 kg of peatland books

03/09/2018 After a long ride, Hans Joosten, John Couwenberg and Mira Kohl arrived today with a van full of books at the GMC. [Professor R.S. \(Dicky\) Clymo](#) (Queen Mary University of London, UK) has donated a large part of his personal library to our Peatland and Nature Conservation International Library ([PeNCIL](#)). We feel deeply honoured and are very thankful. During the visit, Dicky Clymo received greetings and signatures of the General Assembly



of the International Mire Conservation Group (IMCG), which granted him Honorary Life Membership 31.08.2018 in Utrecht. Dicky Clymo is long-term IMCG supporter, editor of the journal [Mires and Peat](#), and has influenced and stimulated generations of peatland scientists. In hope - studying peatlands for ever!

Peat under water

07/09/2018 The WETSCAPES workshop 'Peat under water' on the restoration of peatlands took place on 5/6 September in Salem and dealt with the biochemistry of carbon and nutrients, greenhouse gas emissions from peatlands, as well as biodiversity and biological development of flood peatlands. About 50 scientists discussed the different aspects over 2 days.

Action week '10 Years NKI': GMC guides through exhibition

20/09/2018 On 19 September, the [MoorDialog](#) project offered a guided tour through the touring exhibition 'Peatlands, Climate Protection and Paludiculture', which could be seen until 30 September in the Müritzeum Waren (Mecklenburg-Vorpommern). The guided tour was part of the action week with which the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety celebrated the tenth anniversary of the [National Climate Protection Initiative](#).

October

Europe's largest cultivation area of Sundew is being set up

02/10/2018 Cultivating sundew for its medical purposes is an endeavour Balazs Baranyai und Dr. Jenny Schulz have been pursuing for more than six years. Now, they are actually setting up the largest cultivation area for sundew in Europe - at Breesener Moor, a cut-over peatland within the biosphere reserve Schaalsee-Elbe (Mecklenburg-Western Pomerania). A water reservoir will be installed this autumn and a peat moss-sundew culture established in spring next year. Six years ago both peatland scientists sowed first sundew seeds on a peat moss lawn, followed by [numerous cultivations experiments](#). 2015 they succeeded in obtaining a sustainable sundew cultivation in combination with peat mosses and founded the [PaludiMed GmbH](#) – a first spin-off from the Greifswald Mire Centre. With the new cul-



tivation area they bring pilot trials into large-scale production. Dr. Till Backhaus, Minister for Agriculture and Environment of Mecklenburg-Vorpommern, opened the official ground-breaking ceremony in the Breesener Moor with numerous guests.

New literature evenings in the peatland library

05/10/2018 Locations of disaster and safe havens – we find examples for both extremes in literature on mires. While rotting potatoes, planted on peat soil, forced mass emigration of the Irish, for many slaves in the southern states of America fleeing into vast mires was their only escape. Mires are popular in thrillers, here we find interesting bog corpses and some dwarf people, like in the Congo. All of these places will be presented by peatland specialist and bibliophile Prof. Dr. Dr. h.c. Hans Joosten as part of the [fourth series of literature evenings](#) in the [Peatland and Nature Conservation International Library \(PeNCIL\)](#).

Strong call from Berlin: ‚Peatlands must be wet!‘

26/10/2018 ‚Peatlands must be wet!‘ was the key message of the conference on peatland and climate protection 26th October 2018 in the German Ministry of Environment, Nature Conservation and Nuclear Safety in Berlin. To comply with national and international obligations and minimise greenhouse gas emissions from peatlands by 2050, some 50,000



ha need to be rewetted annually. A large share could be transferred from ‚dry‘ agriculture and forestry to ‚wet‘ agriculture and forestry. The project [‘German Peatland Protection Dialogue - MoorDialog’](#) has facilitated exchange between farmers, water management



authorities, nature conservation bodies, scientists and politicians, and stimulated progress in peatland management in the last three years. The final conference clearly showed what is needed: a clear political framework, financial incentives and compensation, brave entrepreneurs, and sound accompanying research.

November

Green visitors at the GMC

13/11/2018 Anton Hofreiter, co-chairman of the Green Parliamentary Group in the German parliament, informed himself today with party colleagues about the work of the Michael Succow Foundation and the Greifswald Mire Centre. The biologist was particularly interested in the magnitudes of greenhouse gas emissions from peatlands and in concrete land use projects in the region.



Peatlands for everybody in 3 minutes

26/11/2018 Mires are not scary; they are incredibly important to all of us – because wet mires are saviours of the climate! In order for everyone to understand, the MireDialogue project has developed the animated short film 'Mires must be wet!' (in German). The complex topic is explained in a



compact way: peatlands store twice as much carbon than the entire biomass of the world. They filter our water and offer habitat for rare species. But many mires are destroyed or threatened by drainage. In a drained state, they are used for agriculture, but cause extremely high greenhouse gas emissions. The solution: rewetting and wet management (paludiculture), where usage is needed. The Greifswald Mire Centre is working to convey the importance of peatlands for climate protection in public awareness, for example with this explanatory video. Sharing of the video, for example on [youtube](#), much appreciated!

Agriculture and water protection: Combining both goals in Greifswald region



28/11/2018 Thinking together what can be done for the River Ryck – that was the goal at the public event 'Agriculture & water protection – options at the transition between river and land' on the 28th November in the city hall of Greifswald. At the invitation of the projects [CLEARANCE](#) and [MORGEN](#) and the 'Clean Ryck' initiative, land users and owners, representatives of the administration, scientists and interested citizens together discussed the question:

What potential exists for improving the water quality of the Ryck? How could an implementation of paludiculture, the sustainable management of wet peatlands, be promoted along the Ryck? The participants explained their possible role in implementation projects - an important basis for concrete activities that improve peatland condition and thus water quality.

December

Triple win: for climate, peatland the planet - tropical peatlands in focus at Global Landscape Forum

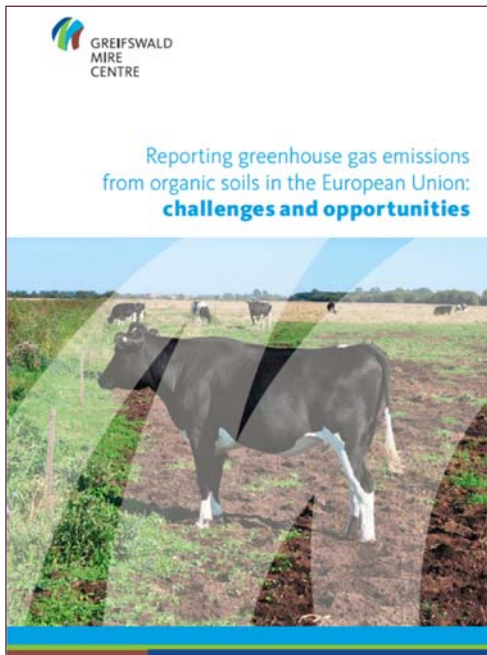
03/12/2018 Tropical peatlands are in focus of a high level event at the Global Landscapes Forum (GLF) 1st December 2018. With the event '[Protecting Tropical Peatlands Together](#)' distinguished officials from the Republic of Congo, Indonesia, Germany and the Ramsar Convention joined forces for a better understanding of tropical peatlands and thus a better conservation and sustainable management. The session highlighted Indonesia and the Republic of Congo's commitments to high level South South collaboration on management, restoration and protection of peatlands. Along with H.E. Siti Nurbaya, Minister of Environment and Forestry, Indonesia, and Arlette Soudan-Nonault, Minister of Environment and Tourism, Republic of Congo, also Hans Joosten (GMC) joined the session and shared his insights on priorities in peatland management. See the event [here](#).



Peatlands at COP24: Against peat fires and for the climate

10/12/2018 The Greifswald Mire Centre, together with partners from the [Global Peatlands Initiative](#), co-organises several peatland events at the 2018 UNFCCC conference in Katowice. The side event 'The trace of haze: Peat fires as local and global challenges' at 6th December was coordinated by UN Environment and Greifswald Mire Centre, and hosted by the German Government. The session presented global experience on peat fires and showcased coalitions for peatland restoration, e.g. the '[Restoring Peatlands in Russia](#)' project, which was awarded the UNFCCC "Momentum for Change" award in 2017. A side event at 7th December brought together multilateral environmental conventions such as Ramsar Convention, CBD, UNCCD and UNFCCC, and future joint action on peatlands was agreed. At 11th December, the lunch session „Stop eating peat“ co-organised by CMok, Wetlands International and GMC will bring attention of the [Climate Hub Katowice](#) to peatlands. GMC also contributed to a side event on peatlands and Nationally Determined Contributions (NDCs) 12th December. We reported intensively on twitter [@greifswaldmoor](https://twitter.com/greifswaldmoor) about COP24.

Reporting GHG emissions from organic soils in the EU



11/12/2018 Just in time for UNFCCC COP24 in Katowice, the Greifswald Mire Centre together with peatland scientists from seven European institutions have produced a [policy brief on reporting GHG emissions from organic soils in the EU](#). The brief covers the policy framework, weaknesses in reporting organic soils in National Inventory Submissions to UNFCCC, and recommendations for improvement. We have presented it at several events during UNFCCC COP24 in Katowice. The policy brief has been produced within the project [INVESTIGATE](#) funded under the [European Climate Initiative \(EUKI\)](#) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). It has been co-ordinated by Dr. Alexandra Barthelmes (Greifswald Mire Centre).

More about Cattail: Typha field day in Kamp



13/12/2018 Cattail (*Typha* spp.) on rewetted fens - this is an ideal combination with many advantages: Climate protection through peat preservation, water protection through nutrient retention, and sustainable production of valuable raw material. However, the cultivation has not yet been realised on an operational scale, although there is great interest in biomass for material use. At another Typha field day on 12th December with around 40 participants, harvesting technology was demonstrated near Anklam, and the participants discussed the cultivation and management of a cattail culture. The field day was organised by the GMC's [MoorDialog](#) project and the [Wetland Products Foundation](#).

Greifswald peatland sciences enforced

17/12/2018 A new professorship of peatland sciences was agreed upon by the government of Mecklenburg-Vorpommern and the University of Greifswald at 17th December. This gives a promising and reliable basis for future peatland sciences at Greifswald University, where [peatland research started some 200 years ago](#) and the university acts as a partner in the Greifswald Mire Centre since 2015.



“The Greifswald peatland scientists analyse, how people and agriculture may make use of peatlands without exploiting them. This is what we want to support with a new professorship” explains Birgit Hesse, Minister of Education and Science in Mecklenburg-Vorpommern. This state is one of Germany’s peatland-rich states. State and university are financing the new W3 professorship jointly with the Stifterverband der deutschen Wissenschaft and the Michael Succow Foundation, partner in the Greifswald Mire Centre.

More moss for the GMC: New peatmoss nursery established



17/12/18 Twelve peatmoss species grow in the new established nursery at the University of Greifswald. The [project MOOSzucht](#) intends to identify the species growing best under site conditions in (Northwest) Germany to reach high yields in [sphagnum farming](#) and produce large amounts of renewable biomass to substitute peat in horticulture. Nearly 500 samples of wild provenances across Europe – from Ireland to Estonia,

from Sweden to Czech Republic and in Georgia – were collected within the MOOSzucht project as the base for research. Dr. Ulf Hauke from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, responsible for peatlands, visited the Greifswald Mire Centre on 17th December 2018 including the new moss nursery.

To look up

Key publications of the GMC

Barthelmes, A. (ed.) 2018. [Reporting greenhouse gas emissions from organic soils in the European Union: challenges and opportunities. Policy brief.](#) Proceedings of the Greifswald Mire Centre 02/2018 (self-published, ISSN 2627-910X), 16 p.

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Crump, J. (ed.), Avagyan, A., Baker, E., Barthelmes, A., Cisneros Velarde, H., Dargie, G., Guth, M., Hergoualc'h, K., Johnson, L., Joosten, H., Kieft, J., Kopansky, D., Miles, L., Minayeva, T., Montanarella, L., van Paddenburg, A., Peters, J., Garcia Rangel, S., Richards, J., Salathe, T., Schoolmeester, T. & Silviu, M. 2017. [De la fumée sur l'eau – lutter. Contre les menaces mondiales liées à la destruction et à la dégradation des tourbières.](#) Évaluation du PNUE en vue d'une intervention rapide. Programme des Nations Unies pour l'environnement et GRID-Arendal, 72 p. Nairobi et Arendal. (in French)

Gaudig, G., Krebs, M., Prager, A., Wichmann, S. and 30 others. 2018. Sphagnum farming from species selection to the production of growing media: a review. *Mires and Peat*, 20(13), 1-30. (Online: <http://www.mires-and-peat.net/pages/volumes/map20/map2013.php>); 10.19189/MaP.2018.OMB.340

Greiser, C. & Joosten, H. 2018. Archive value: measuring the palaeo-information content of peatlands in a conservation and compensation perspective. *International Journal of Biodiversity Science, Ecosystem Services & Management* 14: 210-221.

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Tanneberger, F. & Kubacka, J. 2018. [The Aquatic Warbler Conservation Handbook.](#) Brandenburg State Office for Environment (LfU), Potsdam. 260 p.

Wichmann, S. 2018. [Economic incentives for climate smart agriculture on peatlands in the EU.](#) Proceedings of the Greifswald Mire Centre 01/2018 (self-published, ISSN 2627-910X), 38 p.

Wichtmann, W., Abel, S., Drösler, M., Freibauer, A., Harms, A., Heinze, S., Jensen, R., Kremkau, K., Landgraf, L., Peters, J., Rudolph, B.-U., Schiefelbein, U., Ullrich, K. & Winterholler, M. 2018. [Gute fachliche Praxis der Bewirtschaftung von Moorböden – Positionspapier \(Langfassung\)](#) –. Zusatzmaterial zu Natur und Landschaft – 93. Jahrgang (2018) – Issue 8: 391.

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