

Excursion 3

Peatland Research and Nature Conservation Near Anklam (near Island of Usedom), Establishing a New Reed Stand, Rewetting for Birds

Guides

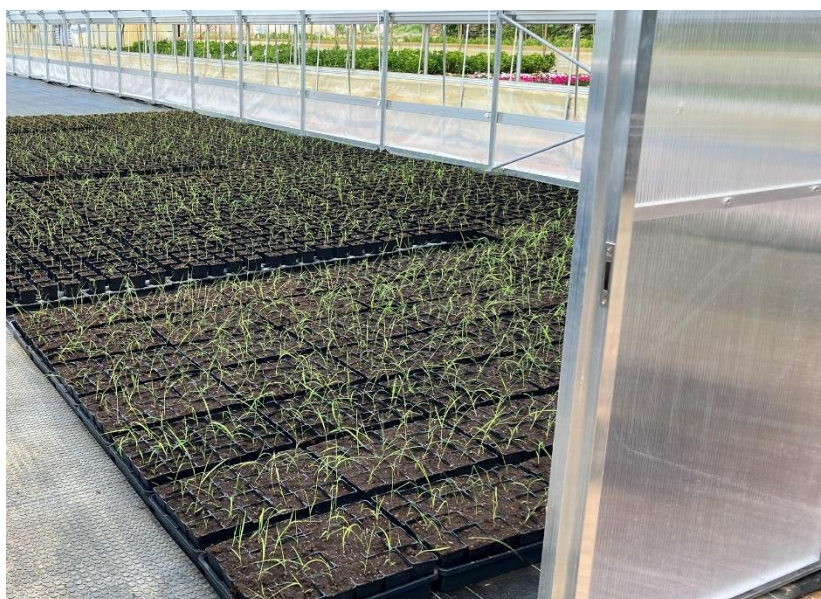
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Excursion Programme

Time	Programme
08:30	Depart from Greifswald
09:30	Polder Bargischow – currently rewetted site (500 ha) with new reed stand (8 ha)
11:30	Ferne Wiesen – mosquito research of the FLI at traditional reed harvesting site
13:00	Lunchbreak during bus transfer to Rosenhagen
13:30	Toilet break at project office of Life Limicodra
14:00	Polder Rosenhagen & Anklamer Stadtbruch – rewetted sites for waders/meadow birds (LIFE)
17:30	Return to Greifswald

Please note:

- Participants must be fit and able to walk 10 km/120 min – please wear comfortable boots for walking.
- The tour to Polder Rosenhagen & Anklamer Stadtbruch will be guided in German, a translation will be carried out as best as possible.



General Introduction

The visited sites of the excursion are located east of Anklam, at the river mouth of the Peene. The peatlands are part of the Peene-Haff peatland complex, one of the largest connected peatlands in western Central Europe. Starting from lake Kummerow, the complex almost extends through half of Mecklenburg-Western Pomerania. After the meltdown of the last glaciers in the region of Usedom, the water formed a proglacial lake that nowadays is the Szczecin Lagoon (Haff). A barrier prevented the water to flow from the lake into the sea, so the water formed three Urstromtäler in which the water ran inland. In one urstromtal now runs the river Peene. Until 11.000 a BP the visited sites were part of the bottom of the proglacial lake. Subsequently the higher precipitation formed peatlands around the valley of Peene and the edges of the Haff. The peatland complex consists of spring fens at the margin, flood mires at the base and percolation mires in between.

Land Use History

Although the Peene valley is the most natural river valley mire in Mecklenburg-Western Pomerania, it was used for centuries and heavily drained in the last decades. Four major phases of land use can be distinguished.

- I. Meadow and pasture landscape (1300 – 1800)
The Swedish fiscal registry survey is the first documentation of the usage of the peatlands. Pastures and meadows dominated the mires whereas most of the area was used unfrequently. The absence of ditches indicates the wet conditions of the mires. The occurrence of shrubland and woods shows the ups and downs of society and population density due to wars, epidemics and migration.
- II. Peat cutting and meadows (1850 – 1920)
Because the Prussian government propagated the use of peat as fuel, peatland drainage was intensified and peat cutting became a widespread land use in the mires. The reformed land ownership, improved levelling and drainage led to more intense use of the areas as meadows. Common pastures that have been wet were transformed into small patches of better drained meadows.
- III. Large-scale drainage (1920 – 2000)
From the 1920s on, the state initiated the formation of cooperatives which were responsible for large-scale drainage of mires. The areas were poldered, ploughed and used as high-intensity grassland. With a break during the second world war, the intensification of agriculture on peatlands was continued.
- IV. Rewetting projects (since 1992)
With the large-scale nature conservation project from 1992 to 2009, a shift in thinking took place in the region. The project paved the way for the area to be protected as the Peenetal Nature Park and included the end of peatland degradation by improving the hydrological system as well as protecting the unspoiled river floodplain as a breeding and resting area for birds. Subsequently, several other nature and peatland conservation projects were carried out in the Peene-Haff peatland, three of which we will visit during the excursion.

Although all sites are close by (max. 5 km distance), they all differ in their current usage. The unpoldered Ferne Wiesen was abandoned after the second world war and is partly used for reed cutting. The famous Anklaer Stadtbruch was rewetted by dike breach in 1995 while the neighbour site Polder Kamp was rewetted by controlled dike slitting in 2008. Both polders formed shallow lakes and thereby attract many waders and migrant birds and with it many tourists and bird watchers. The polder Rosenhagen is part of an EU-LIFE project for breeding waders. To actively wet the meadows solar pumps are used.

The two polders Bargischow Süd and Bargischow Gnevezin are currently rewetted. Bargischow Gnevezin is rewetted as a compensation for the North Stream 2 pipeline, where agricultural use as landscape management is reduced to small parts of the site.

Polder Bargischow Süd is one of two pilot sites of the Paludi-MV project. It aims to implement paludiculture on a larger scale and transfer practical knowledge to users, processors, authorities and the broad public.

Stop 1: Polder Bargischow – Project Area of Paludi-MV

In polder Bargischow Süd (approx. 500 ha) implementation of paludiculture is tested. The polder was bought by the Landgesellschaft MV, thus gaining access for rewetting. The site is managed by a tenant. In contrast to peatland restoration targets at Bargischow Gnevezin, new infrastructure is built in Bargischow Süd for efficient site management: new weirs, water regulation and retention structures were built for subarial water regulation, as well as causeways for improved access and logistics. Due to intensive land use and peatland degradation, the polder lies approximately 1 meter below mean sea level. The current plant community consists primarily of Poaceae, with a proportion of sedges and reed canary grass. The aim is to establish dominant stands, i.e. through hay transfer, selective cutting and sowing. In the eastern part, however, a 40-hectare reed cultivation is planned, with the first 8 ha planted in August / September. The seeds were collected locally and handed over to a nursery for cultivation.

Stop 2: Ferne Wiesen – Mosquito Research Area of the FLI

The Ferne Wiesen fen (approx. 285 ha) is part of the nature conservation area “Unteres Peenetal” (Lower Peene Valley). The lower areas of the Peene Valley, including the Ferne Wiesen, were dominated by weakly eutrophic inundation mires. Unlike most of its surrounding, the Ferne Wiesen was never diked and still has mostly natural hydrological conditions. Today it is divided in three sections. The eastern end is used for winter reed cutting (~ 64 ha), the centre is mown for nature conservation purposes (~ 30 ha), while the remaining area is left to natural processes. The Ferne Wiesen is therefore a unique remnant of the original peatland complex and is used as a reference for near natural conditions in several scientific studies.

The CuliMoor project, conducted by the Friedrich-Loeffler-Institute (FLI) together with the University of Greifswald, partner in the Greifswald Mire Centre, is one of those studies. The aim of the project is to understand dynamics and compositions of mosquito communities in and around peatlands, both drained and rewetted. Since all mosquitoes need water to breed and some species can transmit severe pathogens, changing hydrological conditions in a peatland may create health risks to humans and livestock in the affected areas. To identify potential risks and develop management strategies, understanding the ecology of mosquitoes in peatlands is crucial. Three out of fifteen mosquito sampling sites of the project are in, and another two are just outside, the Ferne Wiesen.

Stop 3: Polder Rosenhagen and Anklamer Stadtbruch

The EU-funded LIFE Limicodra project is an important conservation initiative focused on protecting and promoting wading birds, known as limicoles. The goal is to preserve and improve their habitats on the coastline to ensure their populations remain healthy. The project works closely with various partners and is implemented by the foundation of environment and nature conservation (StUN MV). One of eight project areas is the polder Rosenhagen. The water regime aims to retain as much water as possible in the area without flooding. The high-water levels create perfect conditions for breeding waders, target the enhancement of biodiversity as well as the preservation of the peatland. Electric fencing and predator management ensures the breeding success of lapwings and black-tailed godwits. In cooperation with the farmers, management practices (grazing, mowing) are adjusted to create insect-rich meadows. The project covers the costs of adapting management practices.

Next to Rosenhagen is the famous Anklamer Stadtbruch. This approximately 1.500 ha large mire was rewetted in 1995 by an unintentional levee breach. Although it was a protected area since 1934, the polder was used as a meadow and for forestry until flooding. Due to degradation, most of the peatland lies below sea level which made the polder a big shallow lake and killed the trees. These habitats are now inhabited by birds – like the “colony” of nine breeding pairs of white-tailed eagles and 100 other breeding species. But also, its’ rich lepidofauna with populations of rare species is well known.

Literature

- www.paludi-mv.de
- www.life-limicodra.de

