



A guided walk round the Dead Moor

A guided walk to the EXPO Project "The Dead Moor Is To Live Again" starts from the "Strand" district of Steinhude. The places to stop on the way are numbered on the accompanying map and are described briefly here. The walk lasts about 4 hours.

1. Start of the walk in the Strand district of Steinhude.
2. There is a marvellous view of the "Großenheidorner Wiesen" (Großenheidorn Meadows) from the path.
3. The side-trip to the observation tower is well worthwhile. It can be reached along a boardwalk beside the former peat canal.
4. The "Vogeldamm" (Bird Causeway) branches off here. It is part of the 30 km path around the Steinhuder Meer.
5. The "Wunstorfer Moor" nature reserve lies to the right of the path.
6. The "Düvelsmoor" is on the left. It is part of the nature reserve "Ostufer Steinhuder Meer" (Eastern Shore of the Steinhuder Meer). With a bit of luck this is a good place to hear and see the oriole.
7. The EXPO Project "The Dead Moor Is To Live Again" is explained in detail at the "Hindenburgbrücke" (Hindenburg Bridge).
8. The Stiftsmoor lies to the north of the Wunstorfer Damm (Wunstorf Causeway). Peat was still stripped here until 1970. A moor wood subsequently developed. Plants typical of the moor have spread again since the "weeding out" of an area of more than 10 hectares.



9. More than 50 dams and a number of peat dikes have been constructed round the entire Stiftsmoor.

10. A large birch-tree extracts up to 100 litres of water from the moor each day. That is enough to fill a whole bath-tub. However, it is possible to drown the trees by giving them too much water, and then they die off.



11. Touchwood inhabits the dead birch-trees and decomposes them.

12. Here it can be clearly seen how the high moor is growing again and vegetation typical of high moors, such as cotton grass and peat moss, migrates back to these areas. Where moor woods existed exclusively only a few years ago the moor is once again extending over wide areas.



13. The path leads back via the Wunstorfer Damm to the so-called "Liether Damm" (Lieth Causeway). This is where the Landkreis Hannover began the renaturalization measures more than 10 years ago. The areas belonging to the "Steinhuder Torfmoorinteressenten" (Association of Those Interested in the Steinhuder Peat Moor) have been partially "weeded out" and provided with dams. The moor growth is clearly to be seen today. The path now leads back to the Hindenburgbrücke, and then further to the north.

14. Passing the Stiftsmoor you reach the so-called "Barloh-Damm" (Barloh Causeway). This was the route formerly used for industrial peat stripping. The broad causeway has been returned to its original state and has become a wet area again. Plants typical of high moors have also started growing here again after only a short time.



15. In former times the Barloh-Damm led to an area where the peat was industrially stripped until 1991 - the "Barloh". This whole area was recultivated in accordance with the guidelines laid down by the Landkreis Hannover and with the plans of the firm commercially exploiting the peat. A moor landscape has now developed out of these former working areas. Since the area must under all circumstances remain undisturbed it can no longer be entered.



16. Peat is industrially stripped over a wide area to the left of the path.

17. To the right lies the so-called "Neustädter Moor" (Neustadt Moor). This very species-rich section of the moor is also being renaturalized, "weeded out" and provided with dams. It is one of the important germ-cells for the lasting development of the moor on the western side of the path, which will be undertaken at a later stage.



18. The industrially stripped peat is stored in pits and transported to the peat works in trolleys.

19. This is the end of the guided walk. The large peat works are situated to the east, in the direction of Neustadt. The peat is exported from here to many different European countries.

20. After the end of the guided tour you can reach the town of Neustadt by bus or on foot and visit the Peat Museum of the Landkreis in Schloß Landestrost (Landestrost Castle). Or you can travel west toward the Steinhuder Meer and return to Steinhude from the "Moorhütten" (Moor Huts) by boat - on a so-called "Auswanderer".



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Registriertes Projekt
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The Dead Moor Is To Live Again



Moor

Moors

The Earth's primeval landscapes

Moors are to be found only in a few places in the world. They develop where excess water exists for the greater part of the year. Parts of dead plants cannot totally decompose in this wet environment, so that peat is formed.

Zones of intensive peat formation are located in the northern hemisphere, i.e. in Europe, western Siberia, the north of the USA and Canada, as well as in damp tropical regions.

High and low moors

A distinction is made between two types of moor: low moors are formed by lakes that have become silted up and are linked with the ground water. They tend to be rich in nutrients and have lush vegetation. On the other hand, high moors are not linked with the ground water and are fed by rainwater. They are very low in nutrients.

High moors - as sour as lemon juice

One typical characteristic of the high moors is their high acid content, with a pH value of approx. 3 - 4, which is as sour as lemon juice. Almost no bacteria live here. Dead parts of plants are therefore not decomposed by rotting, but are conserved.



High moors in Germany

High moors are very unevenly distributed in Germany. They are found especially in the north German coastal areas with their large amounts of rainfall, in the low Alpine region and in higher parts of the Mittelgebirge (low-mountain region). Lower Saxony is one of the areas with the most moors. Together with the development of forests, the formation of moors determined the character of the landscape after the end of the last ice age. Of the original 2,500 km² only 10 % still remains in its near-natural state.

What, in fact, is a high moor?

High moors are special biotopes. They are low in nutrients and consist of 90 % water. Only few species of animals and plants have adapted to these extreme conditions.

The most important plant in the high moor is peat moss. While the upper parts of the plants grow, the lower parts die and are not decomposed in the acid environment. Peat formation is a very slow process. A high moor grows by only 1 mm per year.

The "primeval moor landscape" is in danger of disappearing from the face of the Earth

Near-natural moors, like the tidal flats and the high-mountain region, are landscapes relatively uninfluenced by human beings: "primeval landscapes". As a result of human exploitation, as peat stripping and agriculture in association with the drainage of water, the moors as we now know them are seriously endangered. Peat has become an important raw material and is used as a fuel and a fertilizer, or as a plant substrate, e.g. in potting compost. The latter is not necessary, because there are suitable alternatives, such as peat-free potting compost and compost from chipped bark with coconut fibres and wood-fibre materials. Industrial peat stripping is still taking place in huge high moor areas in Eastern Europe today in order to obtain fuel.



The exploitation of high moors by human beings

Moor exploitation has a very long history. As early as in about 900 AD people were already cutting peat by hand from the moors to use it as fuel. In the 17th and 18th centuries the moors were systematically cultivated in northwest Germany in order to obtain land for agricultural use and to settle these regions. In the 20th century the loss of intact high moors was considerably accelerated once again by industrial peat stripping. Drainage is the precondition for the economic exploitation of the moors. Deep trenches and drains are dug in order to do this. Since this means that the rainwater absolutely essential for growth is drawn off, the mosses that store the water and form the peat then die. The high moor dries out, trees and bushes displace the moor plants. In addition, agricultural use leads to the decomposition of the peaty soil.

"The Dead Moor Is To Live Again"

An EXPO Project of the Landkreis Hannover

The Dead Moor (Totes Moor), situated between Lake Steinhude (Steinhuder Meer) and the town of Neustadt a. Rbge., has been considerably damaged by drainage and subsequent industrial peat stripping. The Landkreis Hannover has decided to create the necessary conditions within this entire area so that the moor can grow again after the peat has been stripped.

Regeneration of the high moor

The recreation of natural preconditions for the flora and fauna typical of the high moor is called regeneration. For this purpose two basic conditions have to be fulfilled: the area to be recultivated must be low in nutrients, and it has to be saturated by rainwater again. It is therefore essential that a sufficiently thick layer of high-moor peat remains after the stripping to act as a barrier so that the water can be stored. Peat is thus formed again over a longer period through the growth of peat mosses, and the moor begins to grow again.



An ambitious experiment on 200 hectares of high moor

The joint heirs Sack-Dyckerhoff gave the Landkreis Hannover an area of roughly 200 hectares at the eastern edge of the Dead Moor. With its differently



structured sections it fulfils the preconditions for regeneration. Measures for high moor regeneration have been carried out there section by section since 1993. This has been done on the basis of an expertise by the Hannover District Authority.

There is still much to be done

The areas belonging to the Landkreis Hannover are divided into three different sections:

- The Barloh section was industrially peat-stripped until 1991. Recultivation was subsequently begun in accordance with the guidelines laid down by the Landkreis Hannover and the firm removing the peat.
- The Stiftsmoor is an area that was peat-stripped until 1970. Since that time it has been left untouched and is covered with woody plants.
- The Neustädter Moor is a drained high moor area which the peat-stripping firm has agreed not to use any longer.

Since February 1993 the Landkreis Hannover has had woody plants removed, and dikes and dams constructed within its areas every winter. This has been done largely by employees of the Adult Education Centre of the Landkreis Hannover.



A birch-tree requires 100 litres of water

The removal of the disturbing woody plants from an area is called "Entkusseln" (weeding out). In the Stiftsmoor this was necessary for the regeneration, since the leafy trees drew very large quantities of water from the peat. In fact, a large birch requires up to 100 litres of water per day. That is enough to fill a whole bath-tub. At the same time, after the "weeding-out" process the supply of nutrients via the decomposing leaves is discontinued. More than 50 dams were built into numerous drainage trenches and round the edge in order to retain the rainwater which is so important.



In the Barloh section the firm that had been removing the peat additionally closed the ring-shaped drainage trench as well as numerous slit trenches so that the water could once again be retained in the moor.

The slopes at the edge were flattened, a peat dam was constructed, and the area was thus divided into two sections with different water levels.

The "wetting" is a distinct success today

The regeneration measures of the Landkreis Hannover are being undertaken in close cooperation with the Hannover District Authority and the Steinhuder Meer Ecological Conservation Centre. Since the beginning of these measures additional barriers and dams have



continually been constructed in the Stiftsmoor, and the former causeway used for removing the peat has been returned to its former state. Other drainage trenches were



filled in. One of the results of the increasing "wetting" in the Stiftsmoor is that in the areas where no "weeding-out" had been done the birch-trees are also dying off because of the higher water levels. In the sections without any trees the vegetation typical of high moors, such as peat moss, cotton grass, bog rosemary, bell-heather and sundew, is displacing the moor grass that used to be widespread there. Large sections of the Barloh are also once again covered by cotton grass and peat moss. Specialists, such as sundew, which were replanted in the area, are spreading visibly. In the meantime, bird species not typical of high moors, such as lapwing, greylag goose, little ringed plover and teal are also using the area as their undisturbed breeding ground.

The "primeval moor landscape" can be saved

As a result of the positive development in the case of the regeneration of the high moor, the Landkreis Hannover is convinced that, after the peat stripping, the Dead Moor will once again develop into a living and growing high moor in the long term.

The Dead Moor is an example which proves that even in high-moor areas where peat has been industrially stripped it is possible to develop techniques which can once again restore the natural balance after negative intervention or can create alternatives to qualities that have been lost. The goal is to show visitors from all over the world that the knowledge gained here can also be employed in their own countries in order to safeguard the existence of the "primeval moor landscape" on a permanent basis.

