### **Het Bargerveen**

aardkundig monument

drenthe

# **Restoration of the moor**

Much of the peatland dried up in the 19th century, when it was drained to enable peat extraction. As part of this process, a lot of carbon dioxide (CO2), a damaging greenhouse gas, was released into the atmosphere. The government wants to reduce CO2 emissions, and restoring the water balance in these sites can help to achieve this. In an attempt to restore this water balance, many measures were implemented between 1968 and 2016, such as the construction of dams and the filling of ditches. All the measures were aimed at restoring the water retention capacity of the area, which is an essential precondition for the growth of raised bog vegetation and the capacity to capture CO2. However, these measures alone were insufficient, so in 2016 a major restructuring project was started that will also involve managing the water balance outside the reserve. A key part of this project is the creation of

#### buffer zones so that the peatland will be able to retain more water, while at the same time the recreation and tourist infrastructure will be improved. We are also collaborating with local authorities in Germany to restore the moor on both sides of the border. All these efforts are focused on the preservation and restoration of a unique region so that the public can also get to enjoy this important natural and geological heritage.



#### More information







Gemeente Emmen



Tekst, maps and graphics board Provincie Drenthe Photos: Hans Dekker Basic design: Buro Kloeg January 2017







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On October 27, 2017the Bargerveen was designated a geographical landmark of Drenthe. At 2000 hectares, Bargerveen (Barger Moor) in the southeast of Drenthe is the largest – and one of the most unique – raised bogs in the Netherlands. This nature reserve is the only remaining section of Bourtanger Veen (Bourtanger Moor), which was once 160,000 hectares in area. The high point of the reserve is the Meerstalblok, an active raised bog. The provincial government of Drenthe has designated Bargerveen its seventh geological heritage site, and the reserve is also a Natura 2000 area.



### Silver-studded blues



### How a bog grows

## **Rich history**

The last ice age ended about 10,000 years ago, and this change in climate resulted in warmer and wetter weather. A bog existed here as early as 6000 BC, when the first layers of peat started to be formed. The key plant species in a peatland are peat mosses, which can absorb up to forty times their own weight in water. These plants grow from above while they die off from below, and the result is a thick layer of dead plant matter covered by live moss, which has access to pure rain water. In this situation, we speak of an active raised bog, and the result is a thick layer of peat. In Bargerveen, this layer can be up to seven metres thick. There are also bog pools in the moor that are known as meerstallen. Peat was extracted from Zwarte Meer (Black Lake), which was once a huge bog lake. A raised bog consists of several layers. The underlying sandy subsoil is often covered by a thin layer of impermeable material. This is covered by a thick layer of highly decomposed black peat which, in turn, is covered with white peat. The top layer of white peat was often mixed with the sandy subsoil during extraction and these areas then became known as the dalgronden (lowlands).

From the 18th century onwards, farmers managed to make a living on Bourtanger Veen by draining the moor to create small plots of arable land and grassland. These farmers grew buckwheat, rye, black oats and potatoes. To grow buckwheat, they first burnt off areas of peat and then sowed seeds in the ash. The grasslands were rich in unique animals and plants. Such raised bog grasslands are found nowhere else in the world. Peat extraction became a major activity from 1851. It was heavy work and the harvesters lived in the middle of the peatland. In fact, in the period in between the two world wars, most of the people in this region lived on the moor. The last house - the Uneken house - was inhabited up until 1966 and today serves as an insect hotel. All over Bargerveen there are traces of ancient practices such as the buckwheat burn-offs and peat extraction. Look out for the contours of former fields, elevation differences in the landscape and abandoned house sites.

The Uneken house



# Irreplaceable natural heritage

Bargerveen hosts various peat moss species that are typical of healthy raised bogs. The landscape is ridged and channelled, and these habitats each have their own mix of characteristic plant species, such as bog cranberry, bog rosemary, common sundew and bog asphodel. Where the peat has dried up a little, the result will often be a 'wet heather' habitat with its own special mix of vegetation, bursting with heather, purple moor grass, white beak sedge and sundew. You may also come across English sundew here; the only region in the Netherlands where this species survives. The raised bog grasslands are also well known for their unique plant life, such as the lesser butterfly orchid and the adder's tongue fern.

Raised bogs are dynamic habitats where many animals feel at home, including many species of dragonfly, adders and moor frogs. The wealth of animal life is a source of food for many birds, such as the Eurasian hobby, the red-backed shrike and the bluethroat. In the summer, there are thousands of silver-studded blues, a beautiful species of butterfly. The rare grizzled skipper butterfly lays its eggs on tormentil, a common plant on the raised bog grasslands. Thanks to the restoration work done to date, large areas of the moor are once again covered with water. These areas are an Eldorado for waterfowl such as spotted crake and common snipe. In the winter, the area is used as a resting place by thousands of bean geese and swans. The sea eagle has also been sighted here, where it regularly hunts for waterfowl.



Sphagnun

