

Hunters and gatherers

This primeval forest grew in a period known as the Middle Stone Age (8,800 – 4,900 BC). People moved through this area during that period, surviving by hunting animals and gathering edible plants, fruits and eggs. These migratory peoples built small settlements. Alongside base camps, where larger groups remained for longer periods, they would also have established many small hunting camps. A small group of hunters would operate from these small 'satellite bases' for a few days in order to provide the whole group with sufficient meat. Their prey included deer, bear, wild ox and wild boar.



AM Het Stobbenven, preserved area of 1,5 hectares

Archaeologists rarely find much more than the flint tools they used and the shards created in their making. Very occasionally they may find the remains of fireplaces. A singular object from this period is the dugout canoe found nearby the village of Pesse. This canoe was made from a scots pine and is the oldest surviving vessel in the world. It is on exhibit in Drents Museum. Hunters surely also operated near this primeval forest, but no real evidence has been found of this to date.

Tekst, kaartmateriaal en
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Provincie Drenthe
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Nature in transition

In the Middle Ages, the largest meadowland region in Drenthe was created when the land between Sandebuur and Groningen was reclaimed from the bog. In these nutrient-poor grasslands several nowadays very rare plant species used to grow, such as meadow thistle, tawny sedge and Grass of Parnassus. Over the past decades, many unique species have vanished due to modern farming methods. Only a few colourful strips of land have remained. In these areas you can still find orchids, greater spearwort and bog-bean.

Most of the land between Leekstermeer, Sandebuur and the Peizerdiep has now been designated as water storage area. To this end the water levels have been increased and many depressions have been created in the land. It is expected that this will create suitable conditions for the formation of swamps, which will benefit birdlife in particular. Many bird species have already profited from this work, in particular the great bittern, spotted crane and western marsh harrier. Meadow birds have been less successful, however; they had already started to decline during the last century. Only time will tell whether the distinct vegetation of the nutrient-poor grasslands will return.

More information

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Het Stobbenven

Geologische Tijdschaal:

Hoofdtijdperk	Periode	Tijdvak	Tijd	Aantal jaar geleden
Kenozoïcum	Kwartair	Holoceen	Subatlantisch	2.700
			Subatlantisch	5.000
			Subatlantisch	8.000
			Subatlantisch	9.000
			Subatlantisch	10.000
			Subatlantisch	115.000
			Subatlantisch	150.000
			Subatlantisch	370.000
			Subatlantisch	410.000
			Subatlantisch	475.000
			Subatlantisch	850.000
			Subatlantisch	1,1 miljoen
			Subatlantisch	1,2
			Subatlantisch	1,5
			Subatlantisch	1,8
			Subatlantisch	2,45
			Subatlantisch	2,6



Example of boreal
forest

Soil profile, Wim
Hoek, University of
Utrecht

Het Stobbenven ("Tree Stump Fen") lies to the north of the village of Roderwolde. The area is named for the fossilised tree stumps and trunks that have been exposed as the fen has dried up. These are among the oldest fossilised tree trunks in the Netherlands. Het Stobbenven was declared a Geological Heritage Site on 12 September 2014.



Rare find

In the summer of 2008, a contractor was making improvements to farmland as part of the restructuring of the Eelder- en Peizermaden, the swampy fields bordering the Peizerdiep river. The work exposed spectacular amounts of trunks and stumps in amongst the peat. An inspection by the Cultural Heritage Agency of the Netherlands revealed that these were mostly remnants of pine with a few birches and oaks, dating from between 7,000 and 10,000 years ago. One of the oaks is 7,800 years old, making it the oldest oak discovered in this country to date. With an average age of about 8,000 years, Het Stobbenven is the oldest primeval forest remnant in the Netherlands.

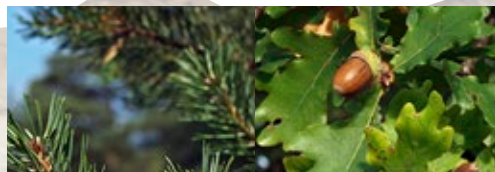


Left: Ton Penders, RCE, During investigation,
Right: view from dike

An area of 1.5 hectares of these fossilised trunks has been preserved as a nature reserve. You can find it at the intersection of Hooiweg and the unsealed road to Sandebuur, behind a farmhouse. Het Stobbenven is recognizable by the bumps of the uneven fields. Across the road you can see the vast expanse of the Leekstermeer swamp, with in the distance the contours of the city of Groningen.

Peat created by ice

Peat started to be formed in Het Stobbenven about 8,000 years ago, during the early Holocene. Peatlands were not formed in the rest of the Netherlands until 3,000 years later, when the sea level rose due to the melting land ice of the last ice age. The history of Het Stobbenven dates back even further, to a period of three successive ice ages. The first of these was some 450,000 years ago, called the Elster glaciation. This ice deposited lots of argil in northern Drenthe, which is a fine and impermeable clay type (commonly known as potter's clay). The second ice age was the Saalian glaciation, about 150,000 years ago. This ice mass pushed up two relatively high ridges of sand on which the villages of Sandebuur and Roderwolde now lie, with between them a lowland in which we find Het Stobbenven. The last ice age was the Weichsel glaciation, between about 70,000 and 10,000 years ago. The land ice did not reach as far as the Netherlands during this ice age, but the cold temperatures ensured that little could grow so that the winds blew unobstructed. The lowland between the sand ridges was consequently filled in with windblown sand, but there remained behind a shallow valley from which seepage and rainwater could not easily escape.



After the last ice age, the Holocene, the conditions were favourable for forest growth. At the same time the valley became wetter, and the forest was gradually covered by a thick layer of peat. So these trunks are the remnants of an early Holocene forest, neatly preserved over all these years in a peat bog.

Unique history

The alternating thicknesses of the annual rings in trees and wood provide us with a good idea of the climatic conditions of the past. Using tree ring analysis, we have now reconstructed the annual growth of the oaks in the Netherlands from 6,900 BC to date. The analysis of the trunks failed to provide an answer to the question of why this forest abruptly died more than 6,000 years ago, but waterlogging must have played an important role in this valley.

One remarkable discovery was that the trunks were found at two different levels. The first level, which grew on the Pleistocene substratum, consisted of mainly pines with some oaks and a few birches. These grew during a relatively dry period. In a thicker layer of peat, a second level was uncovered which contained more oak trees. These trunks lie criss-cross all over the place, so we can conclude that they were not blown down in a storm. What happened was that the wetter climate accelerated the formation of peat, and the trees were unable to remain standing in this soft soil. The fact that the trunks have been so well preserved is due to the anaerobic conditions under the peat.



Wim Hoek, University of Utrecht, Trunks with tree ring