



HET ONTSTAAN VAN NEDERLAND

THE CREATION OF THE NETHERLANDS

Land between rivers and sea

Places where rivers flow into the sea are often full of life. The river splits into smaller streams that are full of fish. Birds and other fish-eaters are happy to come here to fill their stomachs. There is also plenty of drinking water. The land is fertile because of the fluvial deposits and there is enough water to make all kinds of plants grow.

All of this makes a delta an attractive place for people and animals. And fortunately for us, we happen to live in exactly such a place. Because the Netherlands really is one big delta.

If you look at our country from the sky, you'll see neat fields, straight ditches, dykes along the coastline, rivers and lots of asphalt and houses. Nothing that reminds you of a delta. Nevertheless, our country was once shaped by the force of water...

About ten million years ago, the prehistoric river Eridanos flowed into the sea at the same place where the Netherlands are now. The mighty

Eridanos was about three thousand kilometres long. The river sprang in the north of Scandinavia and ran through a large part of northwestern Europe. For millions of years the Eridanos was a determinant in the landscape. You can still find materials in the ground that were left by the Eridanos, and deep down in the North Sea are the remains of the riverbed. However, 700.000 years ago a new ice age wiped the river off the map.

The force of ice

The different ice ages have left a significant mark on the formation of the landscapes in the Netherlands. During the penultimate ice age – the Saalien, between 150.000 and 100.000 years ago – the northern half of our country was covered with a thick ice cap. The cap slowly moved southwards, while pushing up the under-lying ground, creating lateral moraines. These lateral

moraines are still visible in the Gelderse Vallei and the Utrechtse Heuvelrug. The course of the Rhine and the Meuse is also changed by the ice cap. These rivers used to run to the north, but the ice pushed them in a westerly direction. Since then the rivers flow out into the North Sea.

Amersfoort at sea

After the Saalien ice age, the weather in western Europe became cold and dry. The North Sea ran dry and the wind covered the Netherlands in a thick layer of sand from the sea-floor. A few centuries later, a rise in temperature caused the North Sea to be refilled with water. The coastline sometimes moved tens of kilometres inland. And so it happened that the coastline was in the current Amersfoort area. In the low parts of our country, the floods laid the foundation of the later moorland and beach ridges, dunes, mudflats and salt marshes emerged.

Cold or moist

During the glacial periods the climate was dry. Seawater was stored in the ice caps and the sea level dropped. The land was bare, cold and windy. In between the ice ages the climate was moist and was similar to our current climate. Deciduous forests with hazels and oaks arose in the Netherlands, where forest elephants, hippos, rhinos, deer and wild boar resided. At the end of the last ice age the first modern humans lived

in our country. They travelled around, hunted animals and collected food.

Nature's plaything

About 8.000 to 6.000 years ago the Netherlands was shaped the way it is now. Yet the coastline was a capricious area that was ever-changing. At this time, the Wadden Sea emerged from behind the dunes in the north. The highest dunes of those days now form the West Frisian Islands. In the southwest, not only the sea, but also the Scheldt and the Meuse caused continuous floods. Therefore, Zeeland wasn't a suitable place to live until the 11th century. This is when man started meddling in nature and the first regions were impoldered.

Who's the boss?

By reclaiming land from the water, the people got more and more influence on the formation of the landscape. They built mounds to live on. They made embankments along the rivers and sea to keep the water in place. They impoldered large tracts of land. The bogs were excavated so the peat could be used as fuel. Eventually people even shut off the estuaries in the Netherlands and turned the Zuiderzee into a lake. The people started to take charge of the landscape over the last centuries. We decide what our land looks like, what it is used for and how it is organised. This clearly shows when you look at it from above. But the question remains, when will nature bare its teeth again?.

ROOM FOR THE RIVER

The Netherlands will always be a country in which water management requires a lot of attention. You can also tell by looking at the basins of the Rhine, IJssel, Waal, Lower Rhine and Lek. In 1993 and 1995, the water in these rivers was so high that the dykes were about to collapse. Both the cattle and a quarter of a million people were evacuated by way of precaution. As a safety measure, more room is created for the rivers now. The water has more room to find its way, without rising to the edges of the dykes again. For example, the summer dyke near Millingen aan de Rijn, along the river Waal, was removed.

The water in the river now gets the chance to find its way through miscellaneous side channels. Riparian forests with oaks and poplars have arisen and the area has become a suitable habitat for beavers again.

LOW AND HIGH TIDE

The construction of the Delta Works had major consequences for nature reserve the Biesbosch. The Haringvliet was an estuary that was closed off from the sea in 1970. Now the Biesbosch no longer had to deal with the tides and this had great impact on the plants and the animals in the area. Slowly

but surely a new, diverse and rich nature emerged. White-tailed eagles turned up in the area and in 2011 even a young white-tailed eagle was born there. In the eighties beavers were set out in the nature reserve and the animals have been doing well ever since. In 2018, the Haringvlietsluizen are to

be set ajar. That way the water level in the Biesbosch can rise and fall again. Salmon and sea trout can pass through the lock to lay eggs in the fresh water, which attracts fish-eating birds. This way nature keeps on changing, albeit with a little help from mankind.

FIREWORKS IN THE WADDEN SEA

It may be hard to imagine, but 160 million years ago there was an active volcano in the area of today's Wadden Sea. This Zuidwal volcano is located between Harlingen and Vlieland at more than two kilometres

below ground and it regularly belched flows of lava for about twelve million years. The remains of the volcano are buried at a depth of two thousand meters in the earth's crust. Drillings reveal that the moun-

tain is still smouldering. The temperature of the earth's crust in this spot is thirty degrees centigrade higher than elsewhere.



CHEETAH
VAN DE
POLDER

Boven: rammeltijd. Mannetjes rennen achter elkaar aan in de strijd om de gunst van het vrouwtje.

Midden: heel voorzichtig loopt een haas over het flinterdunne ijs naar de overkant van de sloot.

Onder: een vrouwtje kijkt toe hoe mannetjes met elkaar 'boxen' om haar gunst.

Rechterpagina: een jong haasje heeft het maaien van het gras overleefd en houdt zich nu schuil voor een ander gevaar: de ooievaar.

CHEETAH
OF THE
POLDER

Above: mating season. The males chase one another as they fight for the female's favour.

Centre: a hare very carefully crosses the razor-thin ice to reach the other side of the ditch.

Below: a female watches the men 'boxing' for her favour.

Right: A young hare has survived the mowing of the lawn and is now hiding from a different hazard: a stork.





Een grote zwerm spreeuwen vliegt over de rietvelden van Nationaal Park Lauwersmeer.

Volgende pagina's: het lintdorp Jisp in natuurgebied Wormer- en Jisperveld. Het gebied ligt een tot twee meter onder zeeniveau. Talloze kleine watermolentjes zorgen ervoor dat de waterhuishouding op peil blijft.

A large swarm of starlings flying across the reed beds of National Park Lauwersmeer.

Following pages: the ribbon village Jisp in nature reserve Wormer- and Jisperveld. The area is positioned one to two metres below sea level. Numerous small water mills ensure that the water management is maintained.



Boven: een kievitskuiken scharrelt wat rond in het weiland.

Links: een grutto loopt terug naar het nest met eieren nadat zij samen met het mannetje (achtergrond) en een aantal kieviten een aanval van een buizerd hebben afgeslagen.

Above: a lapwing chick scratching around in the pasture.

Left: a female black-tailed godwit returns to her nest with eggs after beating back a buzzard attack together with the male and a number of lapwings.



Boven: schaatsen op de Vechtplassen. Veel beschermde natuurgebieden gaan open om te schaatsen als daar gelegenheid voor is.

Links: Canadese ganzen vliegen op in een sprookjesachtig winterlandschap bij Nigtevecht.

Above: skating on the Vechtplassen. Many protected nature reserves, which normally are closed to public, allow people to come and skate if the opportunity arises.

Left: Canadian geese flying away above an enchanting winter landscape near Nigtevecht.







Boven: genieten van de natuur in een kayak in de Biesbosch. De meeste griendgebieden zijn nu natuur- en/of recreatiegebieden.
Rechts: ook de zeearend is terug in de Biesbosch. In 2015 werden er zelfs drie jongen grootgebracht, een unicum voor Nederland.

Above: enjoying nature in a kayak in the Biesbosch. Most areas are now nature reserves and/or recreational areas.
Right: the white-tailed eagle has also returned to the Biesbosch. In 2015, three young eagles were raised in the area, a unique occurrence in the Netherlands.

