The position of De Hoge Veluwe National Park with respect to wolves

Biodiversity gain or loss?

Rich biodiversity and multi-layered cultural history

The landscape of De Hoge Veluwe National Park comprises a variety of biotopes that are primarily defined by the region's poor, sandy soil. For many centuries, this diversity – woodland, heathland, sand drifts, estates and small agricultural enclaves – has fostered a rich biodiversity and a multi-layered cultural history. These factors are important not only for the flora and fauna, but also for the 600,000 people who visit the Park annually. The consistent active management of the Park in recent decades has encouraged the presence of numerous rare or exceedingly rare plants and animals – for some the Park is now perhaps their last habitat in the Netherlands. Examples include the rare spring sedge, viper's grass, the moonwort, the grizzled skipper, the wart-biter and the *Lemonia dumi* moth. The majority of the distinct areas in the Park have been designated as part of the Natura 2000 network, and visitors can clearly observe the Park's healthy population of small and big game animals.

Balancing conservation objectives

In its efforts to satisfy all its objectives in the best possible manner, the Park is engaged in a continual search to strike a balance between nature and culture; between the various biotopes; and between active intervention and passive supervision of the natural environment. It is also our responsibility to establish a balance between recreation and the resilience of the natural environment. This state of equilibrium is one that the Park actively researches and manages. Detailed monitoring and continuous scientific research has shown that there is a direct relationship between the following factors: the number of grazers (primarily red, fallow and roe deer, and some mouflon sheep); the development of woodland; the presence of herbs and associated insects; and the enduring survival of valuable open and semi-open landscapes. The research serves as the foundation for our decision to set a maximum for the number of grazers in the Park. The animals are counted each year, and an assessment is made of the extent to which their numbers are in keeping with the Park's other objectives.

Active wildlife management

Our understanding, based in part on historical data, is that the objectives described above will best be achieved with a springtime red deer population (prior to the annual surge in births) of 180, and that a population in excess of 180 would undermine other objectives. To prevent this from occurring, it is Park policy to intervene by means of culling.

A decision needs to be taken if fallow deer enter the Park, because their diet falls within roughly the same spectrum as that of the red deer. Given the maximum population of 180 red deer, the addition of one new fallow deer will necessarily be at the cost of one red deer. The visibility of red deer is currently good. If the population were to decline, visibility would also likely decline. The Park has therefore decided not to allow the presence of any fallow deer in the Park, and to maintain the so-called 'zero position'.

A population of roe deer – a grazer of a similar type – is present in the Park. The roe deer is by nature something of a connoisseur, and until now it appears that the Park's roe deer population is remaining stable without culling. The reason for this is that other grazing animals limit the food supply available to the roe deer to such an extent that its population does not rise, thereby not impacting our other objectives. The Park's spring count for these grazers is approximately 150 and it has been decided that as long as the situation remains stable, the roe deer will not be culled.

Finally, there is still a population of mouflon wild sheep, which is maintained as a spring population of 220. Mouflons have a quite different habitat from red, fallow or roe deer, choosing as they do to dwell on dry grasslands and sand drifts, where their grazing preserves vegetation diversity and prevents excessive proliferation. It is for these reasons that the Park maintains its population of this species that is so well-adapted to the harshness of the environment. The mouflons do impact on woodland development, however, and it is necessary to actively manage the herd.

Preservation and development of valuable open landscapes

Indications that the diversity of biotypes and semi-natural ecosystems at De Hoge Veluwe is well-developed, include the fact that approximately 30 per cent of the Park's total area has been designated a European and legally protected habitat, through the Natura 2000 network. An additional 25 percent has the potential to receive the same designation. Far and away the largest proportion of this latter area is open landscape such as heathland and sand drifts.

As is the case throughout the Veluwe region, the Park's open landscapes were formed between the 15th and 19th centuries through intensive sheep grazing. To preserve the openness of these landscapes following the disappearance of these herds, it is general policy throughout the Veluwe to ensure that they are grazed in a natural but monitored fashion. Whereas elsewhere in the Veluwe imported Scottish Highland cattle and Icelandic horses have been introduced for this purpose, the Park has prioritised the use of big game animals – Not only does this decision allow it's open landscapes to be maintained in the most natural way possible, but it also offers visitors a unique experience. These objectives cannot be achieved without taking measures to prevent nature taking its own course. In fact, scientific research and decades of experiential knowledge have established beyond doubt that active management of small and big game, and also vegetation, is an essential component in the preservation of an optimal biodiversity and a richly varied natural environment. This need has only been increased by the ongoing phenomenon of nitrogen deposition, which accelerates the proliferation of the birch and Scots pine trees that can cause the open landscape to become overgrown – this factor alone is sufficient to warrant active intervention.

The mouflons: conservers of the open heathland

In former times, herds of sheep dominated the Veluwe region and maintained the heather; nowadays, the mouflons have taken on this task at De Hoge Veluwe. Although Kröller and Müller initially introduced the mouflon at the start of the 20th century for hunting, the species has proved itself an excellent grazer of heather and overgrown sand drift flats. And unlike the Scottish Highland cattle and Icelandic horses, mouflons consume large quantities of Scots pine saplings, making a significant contribution to the preservation and management of the Veluwe region's increasingly rare open landscapes and their biodiversity. Furthermore, the wild sheep perform this function in a natural and inconspicuous manner, while never causing personal accidents involving visitors – incidents involving other species of large grazers in protected natural environments occur on a regular basis. In fact, it is a unique experience for visitors to De Hoge Veluwe to be able to observe the mouflon in the great expanses of the Park's open landscapes.

Species such as red, fallow and roe deer have a different diet and cannot fulfil the task performed by the mouflon sheep. The Park anticipates, therefore, that these animals will continue their important role into the future, despite not being indigenous to the area. It is worth highlighting the fact that the species has survived independently and self-sufficiently for more than a century in the Veluwe's relatively nutrient-poor environment, and the Park regards this as a sufficient basis for advocating a change to the mouflon's designated status, from 'exotic' to 'native'.

The role of the wolf

As a species the wolf has made huge advances in recent years. The wolf population currently in the Netherlands arrived in the country from Eastern Europe by way of Germany, some of which have settled in the Veluwe region. By nature, wolves are exceptionally shy animals that avoid human contact whenever possible, but the behaviour of the ones that have been spotted in the Netherlands has sometimes diverged significantly from this expected pattern. In normal circumstances the number of 'spontaneous' encounters between humans and wolves is very limited, but in the Netherlands they have repeatedly been seen walking along roads and streets, on some occasions causing considerable damage that has affected sheep farmers. A variety of factors has contributed to this abnormal behaviour: (1) for the first time in history, humans have ceased to hunt wolves, causing the animals to lose their instinctive fear of humans; (2) the wolf is encroaching on very densely inhabited areas for the first time, which exponentially raises the chance of human-wolf interaction; and (3) the wolf is coming into more frequent contact with domestic and wild dogs, increasing the likelihood that these species will cross breed and produce offspring whose behaviour is less timid. It is questionable, therefore, whether the arrival of wolves in our country should be regarded as a victory for a more natural ecosystem. For centuries, the Netherlands has been a densely populated and intensively cultivated country in which nature and humankind must coexist as harmoniously as possible, and it is frequently unrealistic to allow nature to go entirely its own way. Here too, a well-regulated balance delivers the best results, for the natural world and human beings alike.

The wolf is regarded as an apex predator, meaning that it occupies a position at the top of the food pyramid. In natural circumstances, it primarily hunts diseased, weak or ageing ungulates – a natural grouping that includes red deer, roe deer, wild pig, and mouflon sheep. The animal's preferences vary from region to region, and in less natural conditions – such as those found in the Netherlands – a wolf will initially partake of domesticated farm animals such as sheep and calves. It has, in any case,

already been shown that wherever the wolf appears, the mouflon disappears, and with it probably the open landscapes that it manages. While the Park would welcome a more complete system in theory, what consequences would it have in practise? Should a system be permitted to exist that is both directly and indirectly detrimental to animals that have proven benefits and that appear on the international red list of vulnerable or protected species?

Consequences of the arrival of the wolf

Nature conservation in the European Union in general and in the Netherlands in particular focuses firmly on establishing and maintaining opportunities for a broad spectrum of habitats and species. Some of these habitats are thriving due to naturally occurring conditions, but a large proportion of the biodiversity in the Netherlands owes a debt to human intervention. A fine example of this dynamic is the heathland that, without grazing, would soon transform into woodland. De Hoge Veluwe wants to offer other habitats – particularly the open heathland and sand-drift landscapes are so important to Natura 2000 –a chance to thrive. It is partly for this reason that nature conservation organisations supply hundreds of volunteers to carry out conservation activities that inhibit the natural development of climax vegetation. Only in this way will it be possible to save many hundreds of rare species from extinction in the Netherlands. As part of this process, choices are made on a daily basis that benefit one species, while restricting the spread of others. In this context, the decision on whether or not to allow the wolf to settle in a habitat or natural environment is directly comparable to the decision on whether or not to graze specific landscapes.

According to well-known adage in Russia and Poland, 'Where the wolf appears, the forest grows'. This is unsurprising, considering the wolf's preferred diet; where they eat red and roe deer, deciduous trees get the chance to grow again, which in time will lead to the development of a more diverse woodland. In practice, however, the wolf targets more vulnerable prey such as domesticated sheep and mouflons. Furthermore, it is widely known that wolves often kill more animals than they can eat – a gloomy prospect. If, for example, at De Hoge Veluwe the mouflons are the first to fall victim to the wolves, the pace at which the open landscapes managed by these animals become overgrown will increase, and the heathland and sand drift areas and their associated species will be placed under increasing pressure. The disappearance of the mouflon would also mean the end of an iconic species for the Park and for the remarkable cultural and historical legacy that Kröller and Müller created by introducing this species.

As a result of the withdrawal of permission for visitors to roam off the paths, the big game animals (especially the red deer) are more widely spread over the Park, increasing the likelihood of an encounter. Another positive consequence of this change is that the red deer in particular are increasingly living in groupings of a more 'natural' scale. If wolves were to enter the scene, however, these red deer would be inclined to increasingly cluster together. The arrival of a wolf in the Park would: lead to the formation of larger deer groups, reducing the chance of visitors encountering them; increase local pressure on the woodland; and hamper efforts to manage the herd. Furthermore, the presence of wolves is stressful for red deer, causing them to display increasingly nervous behaviour.

The need for management and control of the wolf

Advocates say that the return of the wolf is part of the natural process through which the species can reassert its ancient position at the top of the food chain. The Park does not concur with this claim. The Park knows that each and every square metre of our country – including the Veluwe – has been subject to human intervention at one time or another in the past, and will be again in the future. In no sense will this ever be a natural ecosystem – as already amply illustrated by the cases of the

Amsterdam Water Supply Dunes, the Oostvaardersplassen and Deelerwoud 3. Moreover, it should be taken into full consideration that the Netherlands is one of the world's most densely populated deltas, which is crisscrossed by road and railway networks around villages and towns that are expanding ever further towards one another. The species best able to adapt to humans – such as the wolf – will have the easiest time of it; the species that have the greatest difficulty adapting will disappear. This point alone demonstrates the need for continually exerting control over the system.

Management of De Hoge Veluwe National Park prioritises the sustainable co-existence of a rich biodiversity, a varied landscape and multi-layered cultural and historical heritage. These aims demand active management of nature and landscape, and the development of the best possible balance between natural development and human intervention. Although the Park has no objections to the arrival of the wolf in the Netherlands, it believes it should be permitted to operate controlled management of this species, as it does for other species. And where the presence of the wolf causes unnecessarily high levels of damage to a species that protects exceptionally valuable open landscapes, it should be possible to exclude the wolves in the short or long term. Only in this way can De Hoge Veluwe National Park maintain its essential balance between humans and nature, and preserve its rich biodiversity, varied landscape and multi-layered cultural and historical heritage.

Finally, the provincial 'wolf plan' does not mesh with the Natura 2000 objectives, a fact that was not communicated to the Park. This could have unpleasant consequences, not only for the flora and fauna, but also in a legal sense if it turns out that the Natura 2000 objectives are unattainable.

Hoenderloo, 1 March 2019