

astor fiber is doing very well in the Netherlands. The estimated 1700 beavers in areas such as the Biesbosch, the Gelderse Poort, the Oostvaardersplassen and the province of Limburg add up to a sustainable, viable population. The likeliest explanations for its success are the improved quality of the water, the more nature-friendly banks with willows and poplars, and above all the protected status of the beaver. 'Support for the beaver among the locals in Limburg is under pressure, however, because of the problems the beavers are causing there,' observes population ecologist Hugh Jansman of Wageningen Environmental Research in a report published this autumn on the status of the beaver in the Netherlands.

Almost 30 years after the reintroduction of 42 German beavers in the Biesbosch, the biggest rodent in the Netherlands has become a 'keystone species', reveals the study. 'That means that typical beaver activities such as digging lodges, gnawing at tree trunks and, of course, building dams create niches which benefit other species too,' explains Jansman.

Poplars stripped by beavers form perfect perches for white-tailed eagles, and dams create shallow little lakes which provide spawning grounds and nurseries for fish, and thus also well-stocked snack bars for kingfishers who sit on the dam looking out for a good catch.

Unusual species such as the black stork and the crane benefit too, as do bats and amphibians, says Jansman.

GENETIC IMPOVERISHMENT

There are regional variations in the success of the beaver, however. 'Beavers released in the Biesbosch and the Gelderse Poort have reproduced more slowly than the population in Limburg,' says Jansman. The Biesbosch beavers came from the Elbe region of Germany, while the Limburg population is of mixed origins. The first arrivals were originally Polish and Russian beavers that had been released in Belgium, and they have since been joined by German beavers. That population is genetically diverse, whereas the German Elbe beavers may suffer from in-breeding and genetic impoverishment.

It is also possible that the Biesbosch beavers suffered from heavily polluted river sludge from the Maas and Merwede rivers in the 1980s. 'The beavers' kidneys were certainly full of cadmium at that time, and that is a notoriously toxic heavy metal, so that got them off to a bad start. But to be honest, we don't know what is behind the difference in reproduction rate.'

What is certain is that the reproductive success of the beavers in Limburg is leading them to expand their habitat and they are now found in areas where they are



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damaging trees and agricultural crops. Their dams are also causing undesirable flooding on farmland. And they sometimes pose a danger: by digging in dykes and gnawing on nearby willows, they can damage the layer of clay, causing the core of sand in the dyke to be washed away when water levels rise.

A committee from Limburg Provincial Council agreed this autumn to a plan to cull beavers that are causing a nuisance. A controversial decision among nature conservationists and animal lovers. The beaver owes its protected status in part to the fact that the animal died out in the Netherlands just 150 years ago, as a result of hunting for its pelt and its perfume-rich musk glands. 'You could see the fact that you want to start culling a previously locally extinct species as proof of successful nature conservation,' says Jansman. 'After all, the species is thriving again. The controversy about culling them is understandable because city folk only experience the joys of seeing these animals in the countryside,

while for the rural population they are also a nuisance.' The ecologist hopes the beavers will be spared. 'With targeted beaver management, such as grates protecting dykes or crucial waterways, you can prevent a lot of damage. Cutting down vegetation on and around dykes can help too.' But Jansman has another idea as well. 'By capturing Limburg beavers and releasing them, starting in Weerribben-Wieden National Park, where there aren't any beavers yet, a stepping stone can be created so they can spread into the north of the Netherlands, to places such as the Hunze valley in Drenthe.' Later, more Limburg beavers could be released elsewhere. 'And if they are still causing a nuisance after that, you can always resort to culling,' says Jansman.

HELP WITH MAINTENANCE

In the Weerribben-Wieden, a lot of labour and money goes into cutting down vegetation to maintain the wetland character of the park, says Jansman. The beaver could help with that maintenance. 'And the otter, the icon of vital wetlands, will benefit too. Otters were released there in 2002 but in icy conditions they have great difficulty getting underwater to catch fish. We know that otters use beaver lodges, with their underwater entrances, to dive underwater. So the beaver's arrival could benefit the otter tremendously.'