

THE OTTER POPULATION IS ON THE MOVE

The Dutch otter is back

It was well over twenty years ago that the last otter in the Netherlands was run over by a car in Friesland. Now, after a successful reintroduction, the population is booming, in spite of the number of road traffic victims. But the otter is threatened by a new problem: inbreeding.

TEXT HANS WOLKERS PHOTOGRAPHY ANP ILLUSTRATIONS WAGENINGEN UR, JENNY VAN DRIEL



The death of the last otter in the Netherlands in 1988 closed a troubled chapter in the history of the charismatic predator. The otter was never very prolific in the Netherlands: fishermen were its sworn enemies and hunted it down with considerable success. And a combination of water pollution, fragmentation of its habitats and, above all, traffic, saw the otter off between them. Once it was wiped out, researchers and nature conservation organizations began pulling out all the stops to improve the otter's habitats and to give the creature another chance. And they succeeded. Thanks to stricter regulations on the production and use of chemicals, the water quality of most Dutch rivers and lakes has improved tremendously. Nature conservationists have also met with success in their efforts to mitigate the fragmentation of the landscape, for example by placing wooden walkways under bridges. Otters tend to move along the banks of waterways and, if they come to a road they leave the safety of the water and cross it overland. These improvements to the conditions were reason enough to give the otter a second chance, thought both scientists and politicians. And in 2002, the time was ripe. Eight otters from eastern Europe were released in the north-west corner of Overijssel province. Over the next five years more than 20 animals were released here in the waterlands of De Wieden, De Weerribben and De Rottige Meenthe nature reserves.

MORE THAN 100 YOUNG

'All the provinces wanted to get the otter back', says Hugh Jansman, an ecologist at Alterra, part of Wageningen UR. 'In the end, we chose to release them in the north-west of Overijssel and in southern Friesland because there was a large network of lakes and waterways.' But it was a strategic choice of area too. 'De Weerribben and De Wieden are unique because together they form one of the largest swampy areas in Europe. Releasing the otters there provided an important motive for protecting the areas with legislation. So we took advantage of the otter – in a positive sense.' The newcomers did well, says the ecologist. They are reproducing and there are more than 100 young to show for it. 'The reintroduction area is getting pretty full now, with around 30 to 45 otters', says Jansman. 'Some of

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the young have been run over by traffic, and some have migrated along the waterways to new areas.'

Evidence of otters is showing up with increasing frequency in other areas. Jansman says that signs of their presence have been reported in other parts of Friesland and Overijssel. There are probably a few otters living at Doesburg, near the German border in central Netherlands – one was run over there mid-January. There has also been a sighting near Kortenhoef, between Amsterdam and Utrecht, and a traffic victim near Hazerwoude suggests that the otter has reached the Vechtplassen lake area too.

LOOKING FOR A MATE

Sadly, it is often traffic victims that provide the first evidence that the otter has colonized a new area. Jansman: 'Otters can migrate a long way in search of a mate or territory. In spite of all the obstacles, they get everywhere. It just shows the resilience and opportunism of the species.' If their habitat can be improved further and the number of traffic victims brought down, the future should look fairly bright, thinks Jansman. 'Some improvements can be made quite simply and cheaply. The otter doesn't need much. Along the waterways it needs some shrubby vegetation every couple of kilometres, to use as a resting place.' This prevents the otters from going in search of a sheltered spot and then getting run down on the roads.

According to Jansman, traffic is responsible for 80 percent of otter deaths. And yet it would not take much to reduce the number of road deaths, he says. 'Besides resting places, you could consider a maximum speed at places where an otter migration route crosses a busy road. If you cut the speed from 80 to 60 kilometres an hour you reduce the number of deaths drastically.

Corrugations in the asphalt are another option; they make approaching cars much more audible.'

The other significant cause of otter deaths is drowning in hoop nets, which accounts for 20 percent of the otter deaths in the Netherlands. 'This is only usually a problem if the nets go all the way up to the banks. Otters generally swim fairly close to the banks. Fishers should not place their nets right next to the banks but about ten metres from them, for example.' It could also be effective to equip the nets with 'stop-grids' which let the fish through but keep out otters and water birds.

GENETIC DISASTER

But traffic and fishing nets are not the only hazards facing the Dutch otter. A far more surreptitious killer is at large: inbreeding. This reduces the vitality and fertility of the animal, and could eventually make the Dutch otter population non-viable. 'At present related otters mate. We can establish this from DNA profiles taken from intestinal cells in their faeces', explains Jansman. 'One of

the reasons is that a few very dominant males inseminate all the females in their surroundings. Their offspring then mate, and by then the genetic variation has been halved.'

Jansman believes this inbreeding would have been less of an issue if all 31 animals had been released at once. Due to an initial shortage of suitable animals for release in the Netherlands, small groups were released over a period of several years. 'It was spread out over too long a period', is Jansman's theory. 'This works to the advantage of dominant males. They can easily mate with all the females, and that is a genetic disaster.'

To prevent inbreeding problems, fresh genetic material is needed in the short term, says the otter expert. He argues for the introduction of new animals, in the Gelderse Poort nature area for example, which could eventually accommodate at least 50 otters. Nature conservation organization Ark Nature Development is currently working with the World Wildlife Fund on releasing otters in this area.

The riverine area of central Limburg could also accommodate about 50 otters. And a population here could form a link between the Dutch otter populations and those in the Ardennes in Belgium and the Eifel in Germany. Jansman would also like to see a small group living somewhere between the original population in Overijssel and the group to the south-east in Doesburg. 'For one thing this would facilitate the desirable exchange and for another, it would cater for the nomads that go in search of a partner.'

NETHERLANDS SHOWS THE WAY

In spite of all the problems and bottlenecks, Jansman is optimistic. 'I am convinced that the otter will be back in most of its original distribution areas in the Netherlands in 20 years' time. But we do have to watch out that it doesn't die out again due to genetic impoverishment.' And that will require some funding, says Jansman, for monitoring the population, among other things. That has recently become problematic. 'The funding tap has been turned off', says Jansman. 'Out in the field we very rarely see an otter, but we know every single animal through DNA analyses of their faeces. This is the first winter that we don't have that data about them and are just fumbling in the dark.'

Jansman thinks the Netherlands should make every effort to save its otters. Not least because the project will generate a lot of new knowledge. Jansman: 'The problems China is facing with the conservation of the panda and the tiger are not very different to what we come up against in the conservation of the otter: the fragmentation of the animal's habitat and inbreeding. With the otter research, the Netherlands can profile itself as a model country for the conservation of threatened species.' ■

SEALABLE EARS

The European otter (*Lutra lutra*) is found across large tracts of Europe and Asia, living both in fresh water and along rocky sea coasts. Like the stoat, the polecat and the badger, it belongs to the weasel family. At 12 kilos and almost one and a half metres in length, the otter weighs roughly the same as the badger, but is slightly longer. Its streamlined body, webbed toes, sealable ears and watertight skin make this fish-eater a real water rat.

The territories of male otters overlap those of several females. Otters come on heat twice a year and, depending on the food supply, have between one and five young per year, after a gestation period of two months. After one year, the young otters are ready for independence and go in search of their own territory. These are the animals that often fall victim to road traffic as they migrate.

THE OTTER IN THE NETHERLANDS

