A new Dutch Red List!

Last month, on 3 November 2020, the Dutch government published a revised Red List of Mammals of the Netherlands in the Government Gazette. This is the second revision after the Red Lists of 1994 and 2006, so it can be called the Third Dutch Red List of mammals. Commissioned by the Ministry of Agriculture, Nature and Food Quality, the Dutch Mammal Society published a report, which formed the basis of the Red List published by the ministry (van Norren et al. 2020). The Red List is an indicator of the health of the populations of wild mammals. It shows developments over seven decades since the baseline year 1950. It is far more than a list of species and their status, it is a powerful tool to inform and catalyse action for biodiversity conservation and policy change and is critical to protecting our natural resources. It provides information about the population size and range of mammals, their ecology and threats and the actions necessary for their conservation.

Statistics Netherlands (CBS) has used Red List data to compare the trends since 1995 among seven taxonomic groups (see https://www.clo.nl/en/indicators/en1521-red-list-indicator). On average, the level of threat of mammals has decreased by 35% since 1995. For vascular plants and dragonflies there has also been some improvement, but only about 10%. Breeding birds, reptiles, amphibians and butterflies show no signs of recovery from the 1995 Red List status. So, in general mammals in the Netherlands are doing comparatively well.

All 59 species of mammals regularly reproducing in the Netherlands were assessed according to the criteria of the Dutch government. 19 species (32%) were placed on the Red List:
2 Extinct in the Netherlands: lesser horseshoe bat, greater mouse-eared bat;
1 Extinct in the wild in the Netherlands: bottlenose dolphin;
2 Critically endangered: common hamster, garden dormouse;
2 Endangered: common dormouse, black rat;
5 Vulnerable: polecat, stoat, serotine, root vole, bi-coloured shrew;
7 Near threatened: Bechstein's bat, Leisler's bat, brown hare, rabbit, Geoffroy's bat, particoloured bat, weasel;
38 species (64%) are not threatened at present, and 2 species are data deficient: Brandt's bat and noctule.

In order to make a valid comparison between the Red Lists of 2020 and 2006, the latter has been reconstructed using the current improved methods and new data (see figure). The reconstructed 2006 Red List comprises 25 species (44% of 57 assessed species). These are categorised as follows: 3 species extinct in the Netherlands, 1 species extinct in the wild in the Netherlands, 2 critically endangered, 2 endangered, 11 vulnerable and 6 near threatened. The other 31 species were not threatened.

A comparison between both Red Lists shows six less species on the Red List 2020 than on the reconstructed Red List 2006. This net difference is partly because nine species are no longer listed in the new Red List. There is a deficiency of data for 1 species and 8 species are no longer threatened, of which 1 species (otter) used to be considered to be extinct in the Netherlands, it has been successfully reintroduced in the meantime. On the other hand, 3 new species appear on the Red List: 1 species was not threatened, there was a data deficiency and 1 species returned as reproducing species, but is still rare.

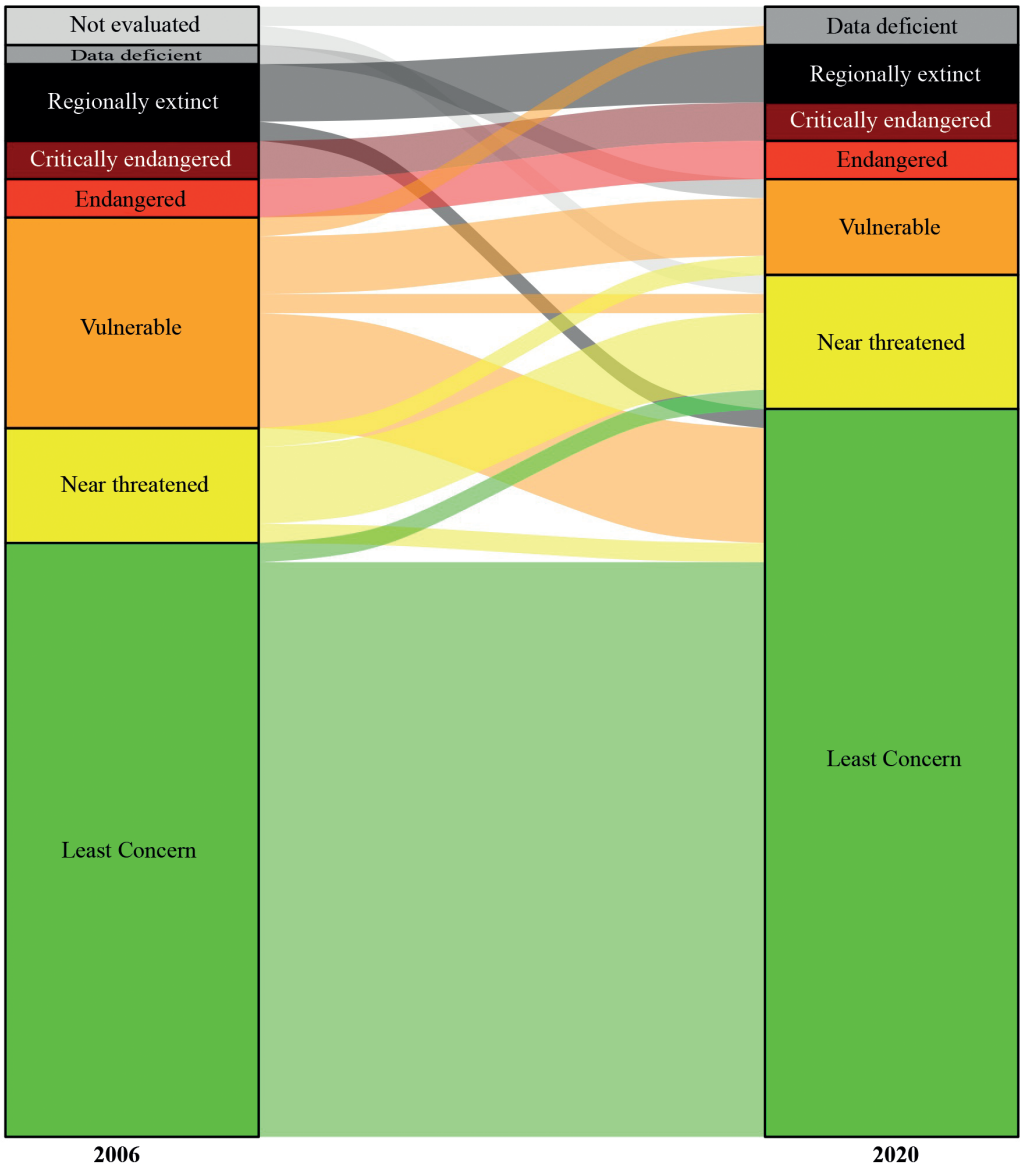
The majority of the mammal species on the Red List 2020 are suffering from stress due to agricultural practices. No less than eleven of the 16 Red-listed species, excluding the extinct ones, are dependent on agricultural landscapes: bi-coloured shrew, common hamster, brown hare, rabbit, garden dormouse, Geoffroy's bat, common dormouse, serotine, stoat, weasel and polecat. The population numbers and distribution of these species have been in decline for decades. Common dormouse, brown hare, rabbit, stoat and weasel numbers have halved since 1950, common hamster and garden dormouse by 75%. The common hamster recently was classified on the IUCN Global Red List as a critically endangered species. The eleven species negatively affected by agricultural changes would benefit from a large scale transition of agriculture towards an ecology-inclusive model. Unfortunately, in October of this year the European Parliament and the Ministerial Council of the EU shut their eyes and ears to the biodiversity crisis in the agricultural landscape and approved a future Common Agricultural Policy with little environmental credibility for the next seven years. Members of the European Parliament (MEPs) and agriculture ministers have, by diminishing the basic environmental conditions attached to EU farm subsidies, opposed the European Commission and its proposal for a Green Deal. So, the future of mammals depending on agricultural landscapes in Europe has become ever more bleak.

"It is terribly disheartening. Behind their glossy words, MEPs and agriculture ministers are largely perpetuating a farm policy which will throw taxpayers' money at polluting, industrialised agriculture until at least 2027. This flies in the face of scientific warnings about the loss of nature and increasing greenhouse gas emissions from destructive farming, failing farmers and nature alike," said Jabier Ruiz, Senior Policy Officer for Agriculture and Food of the WWF European Policy Office.

In contrast to the perilous state of the eleven Red-listed species affected by agricultural intensification there is a marked increase in the population and range of several large and medium-sized mammals, including harbour seal, grey seal, red fox, beech marten, pine marten, badger, otter, beaver, roe deer, red deer and wild boar. Several of those species hit an all-time low at some point in the twentieth century, many of them around 1950, the baseline year of the Dutch Red List. All of these species were heavily persecuted in the past, for different reasons, but with the exception of the fox all have been legally protected in the Netherlands since 1942 (at the latest). Three recovering aquatic mammals (the two seals and the otter) have also benefitted from the reduction of toxic substances in our coastal and inland waters, especially PCBs. Better water quality was key to the successful reintroduction of the otter in 2002.

In this volume, Johan Thissen reviews the *Handbuch Wolf*, an affordable mine of information in the German language about the wolf in Europe, which is actually a revised and enlarged edition of earlier handbooks written by the Polish wolf expert Henryk Okarma.

Elsewhere in this edition Jan de Rijk reviews the historical distribution of the otter, published in Lutra fifty years ago by the late Anne van Wijngaarden (van Wijngaarden & van de Peppel 1970). Mostly drawing information from searchable digitised newspapers and 19th century bounty administrations De Rijk concludes that the reconstructed distribution



Number of species on the Red Lists of 2006 and 2020 (source: van Norren et al. 2020).

map for the year 1900 is too speculative and should show more gaps. An other major conclusion he makes is that the otter population of the Netherlands already declined sharply in the first half of the 19th century. It appears that the status of otters in the Netherlands has for centuries been very dynamic, both in terms of numbers and distribution. This makes the construction of a historic reference point a tricky business. What is interesting is that the 2006 Red List classified the otter as extinct in the Netherlands, but according to the Red List 2020 it is of Least Concern. So after the first reintroduction in our country, which started in 2002, in just over a decade the otter went from the severest Red List category

to the most positive category.

Lutra has a tradition in publishing overviews of strandings of dolphins and whales, e.g. see Lutra's 2018 (61-1) North Sea Cetacean Special Edition in honour of our late former editor-in-chief and cetacean researcher Chris Smeenk. Carl Kinze, who also published in that special volume, has searched 18th century digitised newspapers from Great Britain, the Netherlands, Denmark and Norway for records of strandings of sperm whales. This study revealed several hitherto overlooked records. Searchable digitised newspapers are becoming a major research resource (as with the paper on otters by De Rijk in this volume) and they are potentially a mine of information for further studies. These studies need to combine classical zoological skills such as knowledge of scientific and vernacular nomenclature and their changes through time with historical disciplines such as a clever searching strategy and a profound knowledge of contemporaneous orthography within various languages.

The bottlenose dolphin is regionally extinct in the wild, since it is kept in captivity in the Netherlands. In this issue, Lonneke IJsseldijk et al. describe how a solitary, sociable, bottlenose dolphin followed a sailing boat from Brittany (France) into the port of Amsterdam successfully passing the locks at IJmuiden. The dolphin was known under the name Zafar. A dolphin welfare organisation succeeded in guiding the animal out of the port, back to the sea, but after a few days the animal was found dead on the beach without its fluke. By carrying out a post-mortem examination, IJsseldijk et al. were able to reveal the probable cause of death of the animal. The authors note that relatively many solitary dolphins that associate with people, encounter a tragic fate.

Also related to whales, though erroneously, was the discovery by Youri van den Hurk et al. of a fragment of a tibia of a woolly mammoth by biomolecular analysis of a collection of 40 medieval archaeological supposed cetacean bones and bone fragments. The unexpected outcome was that one bone fragment belonged to the family of elephants. Upon closer morphological analysis of the bone fragment, it turned out to be from a mammoth. This is no proof that woolly mammoth was still extant in the Early Middle Ages in the Netherlands. The bone fragment has a hole, indicating that it was probably used as a tool or artefact by the medieval people who had acquired it. It would have been interesting if the bone fragment would have been dated with radiocarbon analysis.

Finally, in this issue, Jan Piet Bekker tests the hypothesis that formerly isolated islands in the province of Zeeland, in the southwest of the Netherlands show different percentages of the simplex form of the tooth M^3 of the common vole. He shows that the percentages of the simplex form differed significantly between the northernmost (the island of Schouwen-Duiveland) and the southernmost sites (Zeeuws-Vlaanderen) in Zeeland.

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Johan Thissen & Ellen van Norren