

Short Note

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The status of the Dutch polecat population: correction of a recently published error

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Abstract: A recent review of the status of the Western or European polecat (*Mustela putorius*) by Croose et al. (Croose, E., J.W. Duckworth, S. Ruetter, D.V. Skumatov, V.V. Kolesnikov and A.P. Saveljev. 2018. A review of the status of the Western polecat *Mustela putorius*: a neglected and declining species? *Mammalia*. 82: 550–564.) showed that the species is declining over large parts of its range. The information on the Dutch population in this review was based on incorrect information in the *Atlas of the Dutch Mammals*. Here, we correct this information and state that we currently have insufficient data to make inference about the Dutch polecat population. Consequently, there is a need for a robust monitoring scheme for polecats in the Netherlands.

Keywords: correction; *Mustela putorius*; population status; population trend.

What is the status of the Western or European polecat (*Mustela putorius*, Linnaeus, 1758; hereafter referred to as polecat)? That was the question posed by Croose et al. (2018) in their extensive review on the population status over the full range of the species. They gathered information from 34 countries and reported trends on the polecat population in 28 countries (Croose et al. 2018). They found a known or suspected declining population trend

for polecats in 20 countries, and a known or suspected increasing trend in only two countries. Polecat populations were reported to be stable or increasing in one country and stable in five countries. One of those countries with a reported stable polecat population is the Netherlands. Croose et al. (2018) based their analysis on the chapter on the polecat in the *Atlas of the Dutch Mammals* (Hofmeester and Dekker 2016).

Hofmeester and Dekker (2016) showed a figure with indexed sightings of polecats, based on monitoring of mammals (Dijkstra and van der Meij 2015), as part of the Dutch Common Breeding Bird Monitoring Scheme (DCBMS; Van Turnhout et al. 2010). This figure also contains two trend lines, one for the period 1997–2013 and one for the period 1997–2014. The lines for these different periods were presented to show the impact of the great increase in the number of sighted polecats in 2014, most probably caused by a response of polecats to a population peak of common voles (*Microtus arvalis* (Pallas, 1778); Wymenga et al. 2016). In the supporting text, however, the trends are erroneously interpreted as a decline (period 1997–2013) and as stable (period 1997–2014), not considering the standard errors of the slopes of both lines. Van der Meij and Dijkstra (2014) and Dijkstra and van der Meij (2015), who originally analyzed the data of the sightings, do not present indices or regression lines for the polecat in their reports about the results of the mammal monitoring scheme, because trends for this species in both periods prove to be uncertain. Therefore, we have to conclude that the representation in the atlas (including the text supporting the figure) is wrong and has to be corrected. We would like to thank Croose et al. (2018) for making us aware of this mistake. An erratum of the *Atlas of the Dutch Mammals* is being produced.

The uncertainty of the trend has two main causes: a limited number of sites where polecats have been sighted (82 in the period 1997–2014) and the low, fluctuating numbers of polecats that are reported (Dijkstra and van der Meij 2015). For mammal species monitored within the DCBMS having significant trends, the number of count sites is usually more than double the number of count sites for the polecat. Furthermore, the low numbers seen

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are not surprising as polecats are mainly nocturnal (Lodé 1995, Birks 2015), reducing the chance of sightings around sunset and sunrise, when the DCBMS is performed. These low numbers result in a high influence of chance in determining the peaks in the counts that cause the uncertainty in the trend.

With the limited data that is available on the status of the polecat population in the Netherlands, we have to conclude that currently we cannot make any inference about the population trend. The fact that the analysis is based on an insufficient number of sites and sightings shows that we need a more robust monitoring scheme for polecats in the Netherlands. Two current developments are relevant for this. Recently, we have seen an increase in bird monitoring sites where mammal data is gathered. As a decrease in standard error is already happening as the dataset grows, a more robust population trend detection comes into view. The Dutch Mammal Society has also started monitoring polecats by using camera traps, mainly to be able to identify distribution trends.

The status of the polecat population in the Netherlands is thus uncertain although two monitoring programs that are ongoing will likely change this in the (near) future. Thus, the Netherlands falls within the same category as 13 other countries that have insufficient data to provide a certain trend of the polecat population (Croose et al. 2018). This, however, does not change the conclusion by Croose et al. (2018) that the polecat population is declining over large parts of its range and that there is an urgent need for better monitoring programs.

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