## First nine years of recolonization of wolves in the Netherlands

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## Abstract

Since wolf-year 2014-2015, wolves have been recolonizing the Netherlands, even though the small size of the country and the high densities of humans and livestock. In this article, the main policies on wolves and methods of monitoring wolves in the Netherlands are explained. Field monitoring is mostly done by a coordinated network of volunteers and use of genetics in both monitoring and livestock depredation events. The strategy of collecting and validation of the data is in line with the German standards, including a close collaboration between the genetic laboratories in the CEwolf consortium. In nine years of wolf monitoring, 15.347 reports of possible sightings of wolves and their tracks have been documented and validated. Of these, 3666 reports (24%) classified as direct proof of wolf (C1) and 651 reports (4%) classified as indirect proof of wolf (C2). Most abundant proof of wolves are sightings verified by imagery (N=2652), scats (N=942) and livestock depredation events (N=648). Up to April 2023, 90 wolf individuals were genetically identified in the Netherlands. These originated from Germany (36%), Belgium (13%) and the French Italian-Alps (3%) or were born in the Netherlands (27%). The first wolf territory was established in July 2018 and the population has increased since, with four wolf packs, five wolf pairs and one solitary territorial wolf in the Netherlands at the end of wolf year 2022/2023. Most of the 648 livestock depredation events involved sheep (94%). In only nine events, it was confirmed that the wolf deterrent fencing was correctly placed. The perception on wolves to the Netherlands seem to be ambiguous, even though the authorities aim for coexistence between humans, livestock and wolves. An increase in international cooperation regarding expertise with human-wildlife conflict and coexistence is recommended.

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