Data Article

Data to model risks for recolonizing wolves in Scandinavia through the integration of territory presence and human-driven mortalities

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ARTICLE INFO

ABSTRACT

This dataset article describes the data and sources used to model risks for the recolonizing wolf (*Canis lupus*) in Sweden and Norway in the article "Integrated spatially-explicit models predict pervasive risks to recolonizing wolves in Scandinavia from human-driven mortality" (Recio et al., 2018). Presences on wolf territories were used to model the potential distribution of the species. Presences of human-driven mortalities including traffic collisions, culling (protective/defensive, and licensed hunting), and illegal killing (i.e. poaching) were used to model predictions on the distribution of these mortalities. Sources for the independent variables used for the models are also described.
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Specifications Table

Subject area	*Biology*
More specific subject area	*Ecology, conservation biology*
Type of data	*Text files*
How data was acquired	*Monitoring campaigns, animal telemetry (VHF and GPS), websites, governmental data*
Data format	*Analyzed*
Experimental factors	
Experimental features	
Data source location	*Sweden and Norway*
Data accessibility	Data is with this article.
	For the independent variables:
	http://land.copernicus.eu/pan-european/corine-land-cover/clc-2012
	www.scb.se
	www.ssb.no
	www.algdata.se
Related research article	M.R. Recio, B. Zimmermann, C. Wikenros, A. Zetterberg, P. Wabakken, H. Sand, Integrated spatially-explicit models predict pervasive risks to recolonizing wolves in Scandinavia from human-driven mortality. Biol Conserv, 226 (2018), pp. 111–119. [1]

Value of the data

- A compilation of the wolf monitoring reports used to produce the distribution dataset on wolf territories in Scandinavia is included to inform further studies on wolf expansion.
- These data show the presences of four causes of human-driven mortality of wolves in Scandinavia, which is of relevance for further research on the distribution and occurrence of these mortalities.
- The descriptions and sources of the data related to the independent variables used on the models can facilitate the search for these data to further research.
- These data provide a benchmark for further studies on the impact of human-driven mortality on wolf population and expansion in Scandinavia.

1. Data

For the species distribution models (SDM) on the distribution of wolf territories [1], we identified wolf territory presence in Sweden and Norway (hereafter Scandinavia) from published annual monitoring reports (see the full list in Supplementary material). These annual reports have compiled the information on monitored wolf presence and population distribution in Scandinavia since 1978. The monitoring campaigns are conducted by regional and national authorities in collaboration with NGOs and the general public combining snow tracking, DNA sampling (faeces, urine), and dead individuals. Data from > 160 tracked wolves during 1998–2016 using very high frequency (VHF) and global positioning system (GPS) collars are also included in the monitoring reports. Wolf territories are estimated in these reports using minimum convex polygon (MCP) methods as explained in Recio et al. (2018). For models on human-driven wolf mortality [1], we used the locations of reported collisions involving cars or trains ($N = 74$) since 1999, as well as our compilation of poaching, protective/defensive, and licensed hunting events (Fig. 1).

The independent variables used to model wolf presence and human-driven mortality presence included assorted land cover variables, transport infrastructures (road and railways), human population density, number of sheep farms, brown bear (*Ursus arctos*) presence, presence of wolf breeding range (WBR) or not, and surrogates of prey abundance. We compiled the landscape variables from