Wild Boar (*Sus scrofa*) distribution (EUSALP)

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Summary Distribution of Wild Boar (*Sus scrofa*) in the EUSALP perimeter.

Legend

▨ Wild Boar distribution

1 Data

Knowledge about species distribution is vital for planning in wildlife management. This layer shows the available distribution data for wild boar in the EUSALP perimeter.

Species distribution data were collected from appropriate state agencies and (hunting) organizations. As there is no consistent methodology and legal requirement in the different countries on how species distribution is mapped, the available distribution data differed greatly.

Some regions provided distribution data (e.g. France), some provided habitat distribution data (e.g. South Tyrol), and in some regions data on wild boar distribution was not available or is not collected.

1.1 Distribution data

The complete list of datasets used for the distribution layer of wild boar is provided in Table 1. As some datasets overlap, the applied dataset is indicated in the column 'Country / Region applied' as country/region code or as '<<' when the original extend of the dataset was used.

Table 1: Wild Boar distribution data

Dataset	Country / Region covered	Country / Region applied	Year created	Year updated	Source	Type
Jagdstatistik Österreich	Austria	AT			STATISTICS AUSTRIA	Hunting bag
Jagdstatistik Schweiz	Switzerland	CH			Bundesamt für Umwelt Schweiz	Hunting bag
IUCN wild boar distribution	EU	DE		2008	IUCN Red List	IUCN
IUCN wild boar distribution	EU	FR		2008	IUCN Red List	IUCN
Italy wild boar presence	Italy	IT			Institute for Environmental	Distribution grid

Dataset	Country / Region covered	Country / Region applied	Year created	Year updated	Source	Type
					Protection and Research	
Hunting statistics Slovenia	Slovenia	SI			Slovenian Forest Service	Hunting bag

1.2 Data on species absence

Species absence was derived from layers of urban areas for the countries and for some species, elevation data was used to exclude areas where distribution is unlikely (conservative assessment). If used, the elevation parameter can be found in Table 3.

Table 2: Wild Boar absence data

Dataset	Country / Region covered	Country / Region applied	Year created	Year updated	Source
Elevation	EU	EUSALP			Eurostat
TLM Siedlungen Schweiz	Switzerland	CH			Bundesamt für Landestopografie swisstopo
Ortslage Berchtesgaden	Berchtesgaden	DE215		2014	AdV Deutschland
Corine Landcover	EU	EUSALP		2012	Copernicus Land Monitoring Service
Landnutzungsplan Südtirol	Südtirol	ITH1		2018	Autonome Provinz Bozen - Südtirol

2 Methods

The respective layers were imported into a PostgreSQL database (Version 9.6, PostgreSQL Global Development Group) and processed using PostGIS (Version 2.4.3, Refractions Research).

The distribution data was patched together from different sources: (fine to coarse)

1. Distribution data
2. Species habitat data
3. Hunting bag data (quality differs)
4. IUCN distribution data (intersected with NUTS community data)

When distribution or habitat data were not available, an approximate distribution derived from hunting bag data (years 2008 – 2018, depending on availability) was used by intersecting hunting bag data with the NUTS community layer.

When no other data were available, either an intersect of the NUTS community layer with the IUCN wild boar distribution layer was used, or, in case the IUCN distribution layer overlapped the NUTS layer, the NUTS community layer was used as is.

The layers were simplified to 10m, validated, dissolved and intersected with the National Administrations layer (EuroGlobalMap). Afterwards, occurring spatial gaps, due to varying scales and spatial precision of the input layers, were manually cleaned in QGIS (Version 3.4).

The distribution layer was then clipped with settlement data where the distribution of wild boar can be ruled out with relative certainty.

2.1 Special parameters

For some datasets, additional parameters were used to filter relevant information (see Table 3).

Table 3: Wild Boar data special parameters

Dataset	Distribution / Absence	Parameters
Hunting statistics Slovenia	distribution	intersect with community NUTS
Italy wild boar presence	distribution	point layer 80 km buffer intersect with community NUTS
IUCN wild boar distribution	distribution	cntr = DE, intersect with community NUTS
IUCN wild boar distribution	distribution	cntr = FR, intersect with community NUTS
Jagdstatistik Österreich	distribution	intersect with community NUTS
Jagdstatistik Schweiz	distribution	intersect with community NUTS
Corine Landcover	absence	legend_lab ~* artificial
Elevation	absence	over 2500 m
Landnutzungsplan Südtirol	absence	bez_d ~* gewerbe, spielplatz, wohn, parkplatz, verkehrsinsel, zone

3 References

QGIS Development Team (2019). QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.osgeo.org.