



Some facts about **wolf** and **predation**



History

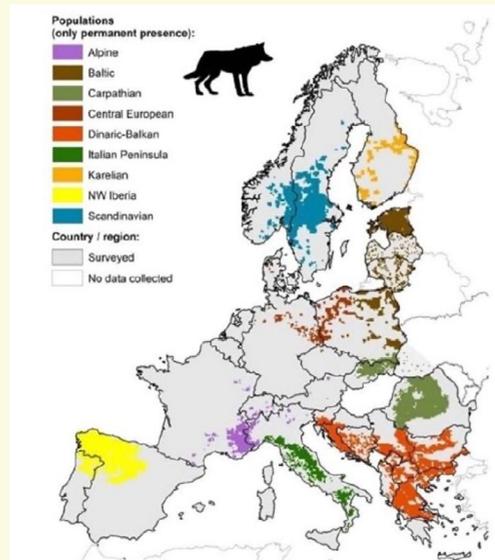
- Having been extirpated from most of Europe during the 18th and 19th century, wolf populations reached their lowest levels in Europe in the 1960s and 1970s. They almost completely disappeared from Finland, Scandinavia and central Europe and were confined to Eastern Europe and the southern European peninsulas, where a few small and fragmented populations survived close to extinction.
- From the 1970s, wolves started to recover and are now present in most of the EU Member States. With the return of the wolf, also conflicts with livestock return.
- In France, the first wolves returned to the Southern Alps in 1992. They immigrated from the Italian population, where they were never completely eradicated, unlike in France, where the last wolf was killed in 1940, or in Great Britain, where they were exterminated three centuries ago. The Italian wolves belong to the *Canis lupus italicus* subspecies and make up the “Italo-Alpine” population. Wolves have also survived in eastern Poland. These wolves are *Canis lupus lupus*.
- Strictly protected in Poland since 1998, they have spread as far west as Germany, first in the north, then south and west: wolves from the east are now meeting Italo-Alpine wolves in France.

Some facts

- No fatal wolf attacks on people have been recorded in Europe in the last 40 years.
- The occurrence of a wolf population is directly linked to the availability of prey. The populations regulate themselves and can never move into the territories of other populations. As soon as a territory is saturated, wolves disperse, as is happening in Western Europe at the moment.
- Wolves need a minimum of peace and quiet, even if they can live in certain peri-urban areas.
- The wolf's diet can be very diverse. Although a wolf feeds mainly on wild ungulates (roe deer, chamois, deer, wild boar), it also eat hares, rabbits, marmots, farm animals, insects, amphibians, birds, reptiles and even fruits.
- Packs can travel up to 40 km a day.

Role of the wolf in ecosystem

- The wolf plays an important role in the ecosystem. It can limit the population of wild ungulates, and thereby reduce browsing, damage to agriculture and forestry, as well as the incidence of diseases (e.g., tuberculosis, African swine fever) transmitted by wild ungulates to livestock.
- Wolves provide carrion for scavengers.
- Wolves hunt wild ungulates and may sometimes compete with hunters for prey. However, wolves kill far fewer wild ungulates than hunters and select individuals with a lesser reproductive value.



Wolf populations in Europe in 2015, EC 2023.

Predation on farm and domestic animals

- Wolves kill annually at least 65.500 heads of livestock in the EU, 73 % are sheep and goats, 19 % cattle and 6 % horses and donkeys. The highest damage to livestock is reported from Spain, France and Italy (14.000–10.000 heads annually in each country). Sheep are mainly killed in France, cattle in Spain, horses in the mountains of southwestern Europe and semi-domestic reindeer in Finland and Sweden.
- Considering that there are about 60 million sheep in the EU, the level of sheep depredation by wolves represents an annual killing of 0.065 %.
- Most of the prevention methods used in the EU have shown a high or moderate degree of effectiveness, but protecting free-ranging livestock remains very challenging.
- Another possibility is the use of “support shepherds”, salaried shepherds who provide invaluable assistance; the human presence in the pastures requires the installation of huts with modern facilities (support is granted in France to enable them to be heliported).
- In general, damage to livestock has increased as the wolf population has grown. But, in some of the German federal states with the highest number of wolves, the frequency of wolf attacks on livestock has decreased significantly in recent years, which was associated to the use of adequate preventive measures.
- Depredation levels are typically higher on free-ranging livestock and are lower in areas where wolves have never disappeared (e.g. Slovenia). Natural prey availability, landscape characteristics and protection measures also shape the incidence of damage to livestock.
- The presence of guard dogs is a tried and tested response. However, dogs need to be trained, as do breeders. Protection dogs sometimes cause incidents with hikers (often due to hikers’ dogs not being kept on a leash) or conflicts between neighbours. The general public also needs to be made aware of the presence of these dogs. In France, transhumance practitioners are calling for the introduction of a status for guard dogs that will give breeders greater security, and a specific insurance system that is effective and affordable for breeders.

Predation on farm and domestic animals

- Several French NGOs, such as FNE (Alpatous), Ferus (Pastoraloup) and WWF (Entre chien et loup), have launched experimental programs to promote cohabitation between humans, wolves and dogs.
- In France, a drop in attacks was observed in 2021 in several Alpine departments, where predation is older and protection measures are increasingly widespread.
- Temporary fences, colored strips and other mobile or illuminated scaring devices can also be useful. Flash lamps can scare off larger predators, such as snow leopards in the highlands of Asia.
- The Natural Resources Institute of Finland has informed the public on radio-collared wolf positions, reducing the risks of attacks.

Legal regulations

- Wolves in the EU are protected by the Bern Convention from 1979 on the conservation of European wildlife and natural habitats and the Habitats Directive from 1992. But the strict protection of wolves may be derogated under certain conditions to, inter alia, prevent serious damage to livestock or in the interests of public safety. In other words, depending on the country, regulated hunting may take place.
- For those Member States where wolves are listed in Annex IV of the Habitats Directive, derogations can be used on a case-by-case basis, in line with the requirements of the Directive. The use of derogations is highly variable.
- According to the wolf assessment carried out in 2018 by the International Union for Conservation of Nature (IUCN) Red List, six of the nine European wolf populations were considered as non-threatened. Three populations were considered as "Near Threatened" (Iberian, Italian Peninsula and Karelian populations), three were classified "Least Concern" (the Dinaric-Balkan, the Carpathian and the Baltic populations). The remaining three were listed as "Vulnerable" (the Western-Central Alps, the Scandinavian and the Central Europe populations). Red List assessment of the wolf is not uniform at a pan-European level.

Legal regulations

- For instance, France has introduced a maximum ceiling for all the targeted lethal removal authorizations of wolves. This has increased from 10 % of the wolf population size in 2004 to 19–21 % in 2021. Yet, the wolf population is still increasing. The French “wolf plan” for 2024–2029, yet to be published, is expected to favour wolf culling.
- In Sweden, in the 2022–2023 winter season, 57 wolves were legally culled (14 % of the population).
- 68 % of people living in rural areas of the European Union believe that wolves should be strictly protected.
- In December 2023, the European Commission proposed to classify the wolf as a “protected” species rather than “strictly protected”. This change, if adopted, would pave the way for an amendment to the European Habitats Directive, which derives from the Convention and has never been amended.
- But, for many NGOs, the existing derogation system under the Habitats Directive provides sufficient flexibility to deal with ‘problem’ wolves.

Current situation

Number of wolves

- About 20.300 individuals have been estimated in 2023 across the EU, significantly more than the 11.193 wolves estimated in 2012. Overall, the number of wolves in the EU is increasing.
- According to the latest conservation status assessment undertaken under Article 17 of the Habitats Directive, covering the reporting period 2013–2018, the wolf was reported to be present in 21 EU countries.

Wolf population in the EU member states¹

UE MEMBERS	Number of wolves	
	2013–2018	Most recent count
ROMANIA	2500 – 3000	2500-3000 (2019)
ITALY	1363 – 2765	3307 (2945-3608) (2020-a2021)
POLAND	1190 – 2582	1886 (2021)
SPAIN	1234 – 2390	> 2100 (2022)
LATVIA	1126 – 1187	700 (2020)
GREECE	907-1134	1020 (2014)
BULGARIA	800 – 1200	2712 (2021)
FRANCE	387-477	1104 (1000-1210) (2023)
SLOVAKIA	302-610	400-600 (2023)
SWEDEN	310-430	450 (356-585) (2022-2023)
ESTONIA	180-260	300-330 (2022)
CROATIA	172-194	243 (2023)
FINLAND	168-193	291-331 (2023)
LITHUANIA	136 – 200	728 (2023)
GERMANY	152-166	1404 (2022-2023)
PORTUGAL	118	300 (2023)
SLOVENIA	72-78	116 (2022-2023)
HUNGARY	40-60	60-70 (2021-2022)
AUSTRIA	29-36	70-80 at least (2022)
CZECH REPUBLIC	5-80	120-150 (2023)
BELGIUM	4-6	28 (2023)
LUXEMBOURG	1-2	0-2 (2023)
DENMARK	/	44 (2023)
NETHERLANDS	/	63 (2023)
		TOTAL: 20.356

¹ According to Table 2.2.1. and table 2.4.1. in European Commission, Directorate-General for Environment, Blanco, J., Sundseth, K., The situation of the wolf (Canis lupus) in the European union – An in-depth analysis, Publications Office of the European Union, 2023.

Wolf population in the EU member states¹

- Wolf monitoring is very uneven across the different Member States which gives an unclear overall picture of the EU population and status— it is a priority to improve monitoring standards.
- Deliberate and accidental killing by humans is the main cause of wolf mortality in Europe. Poaching emerges also as an important cause.

Lethal control of wolf

- However, lethal controls of wolf populations have not been scientifically proven to be effective in reducing livestock depredations. According to a study carried out in Latvia following the resumption of wolf hunting, predation has not decreased, wolves are reproducing faster, packs are breaking up and causing predation else-where.

Compensatory measures

- Damage caused by wolves to livestock is compensated in most of the EU countries, in general using the ex post facto system that requires the damage to be documented. In the European Union, around 18.7 million euros per year are paid in compensation for wolf damages. France pays the highest amount in terms of compensation (about 4.1 M euros in 2022).

Wolf damage on livestock in the EU member states²

Country	Year of depredation	Sheep & goats	Cattle	Horses/ Donkeys	Dogs	Year of Compensation	Amount of compensation (€)
Austria	2022	860	11	0	0	2022	350,000
Belgium	2022	196	9	3	0	2022	50,900
Croatia	2022	2777	625	61	48	2022/2023	460,155
Czech Rep.	2022	701	50	0		2022	390,038
Denmark	2022	159	2	0	0	2022	51,093
Estonia	2022	966	26	0	10	2022	160,494
Finland	2022	518	0	0	<50	2021	250,613
France	2022	11,981	443	23	79	2022	4,100,000
Germany	2022	3869	260	30	3	2022	616,413
Greece	2022	2660	3474	529	0	2022	2,301,650
Hungary	2021	63	0	0	0		
Italy	2019	8480	1432	318	0	2019	1,918,566
Latvia	2021	45	2	0	4	None	None
Lithuania	2022	1269	137	1		2022	290,571

² According to Table 3.3.1. in European Commission, Directorate-General for Environment, Blan-co, J., Sundseth, K., The situation of the wolf (Canis lupus) in the European union – An in-depth analysis, Publications Office of the European Union, 2023.

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