

December 2023



CASE STUDY

Livestock depredation and large carnivores in Europe: France - livestock damages and wolf

EU PLATFORM ON COEXISTENCE BETWEEN PEOPLE & LARGE CARNIVORES

Minimizing
Conflict

Finding
Solutions

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France

France has the highest level of recorded livestock damages by large carnivores in the European Union. Damages are mainly caused by the wolf in the Alpine Arc, but the wolf is gradually moving west and north, and new territories are added every year. The general trend for livestock damages in France has started to decrease since peaking in 2020. While there is significant political conflict around the wolf, most breeders have adopted protection measures in areas to which the wolf returned longer ago and damages in these areas are reducing.

In addition to the wolf, France shares a bear population with Spain in the Pyrenees and there is conflict around the damage they cause to livestock. A small lynx population is present in the Jura and Vosges which generally causes little damage but is nonetheless subject to some controversy.

Wolf = estimate 783¹ (2021)

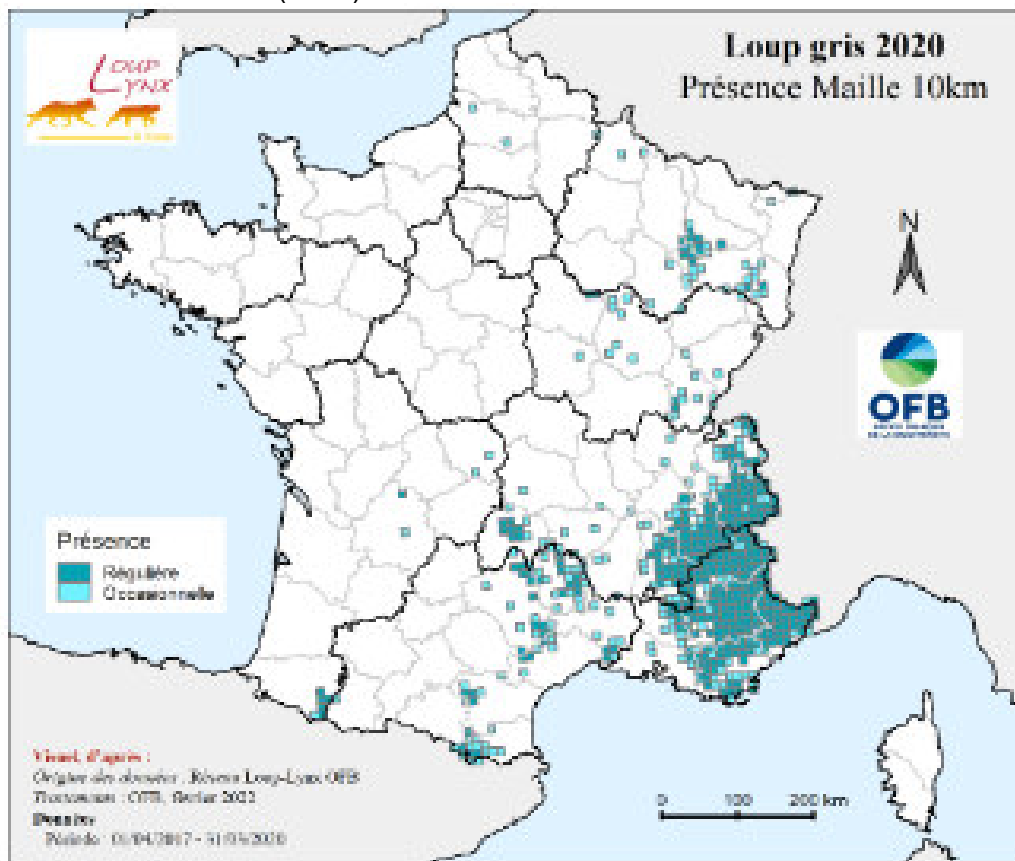


Figure 1. Wolf presence across France (OFB data)

¹ LCIE (2022). Assessment of the conservation status of the Wolf (*Canis lupus*) in Europe. Document: T-PVS/Inf(2022)45. (<https://rm.coe.int/inf45e-2022-wolf-assessment-bern-convention-2791-5979-4182-1-2/1680a7fa47>) Last accessed: 26.5.23.

Institutional structure

Wolf management is organised between the Ministry of Ecological Transition and Territorial Cohesion (METC), the Ministry of Agriculture and Food (MAA), and their representations in the regions and departments (the DREAL, the DRAAF and the DDT) as well as the Office for Biodiversity (OFB), responsible for monitoring the species and damages caused. The ministries collaborate on the management plan: 2018-2023 National Action Plan on the wolf and stock-rearing activities², one of a number of action plans for vulnerable species in France³. The 2024-2029 Plan has been presented to stakeholders in draft form and will come into force 1 January 2024⁴. There are separate plans for bear management and lynx conservation.

Implementation of the National Wolf Plan has been delegated to the region most affected by wolf presence (Auvergne Rhone Alps) where the representation of the state in the region (the *Préfet*) coordinates the plan with the support of a stakeholder group which meets regularly (*Groupe national loup et activités d'élevage*⁵).

Livestock damages

Wolf = 11,616 victims (2022). In comparison, bears killed 590 animals in the French Pyrenees (2022) and lynx up to 140 (2019).

Overall national trend: Decreasing damages

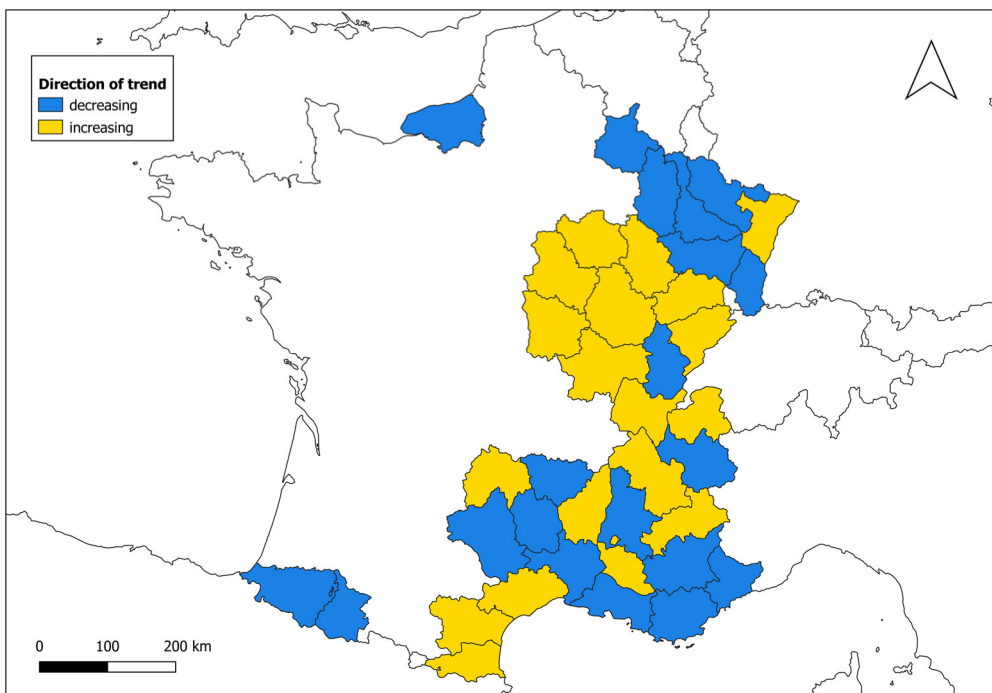


Figure 2. Trends in damages across France, see EU LC Platform (2023) for more information

² https://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/IMG/pdf/nap_wolf_and_stock-rearing_activities_2018-2023.pdf

³ <https://www.ecologie.gouv.fr/plans-nationaux-dactions-en-faveur-des-especes-menacees>

⁴ <https://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/le-plan-national-d-actions-pna-2024-2029-sur-le-a24378.html>

⁵ <https://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/groupe-national-loup-et-activites-d-elevage-a22323.html>

Areas of increasing damages are predominantly on the colonisation front.

Management response

The approach recommended in the above-mentioned National Action Plan is 1. to protect flocks against the wolf; 2. to pay compensation in the case of attacks despite protection and 3. to cull wolf individuals or groups in the case that damages occur despite recognised protection measures.

Protection

In France, protection measures are funded through the CAP (co-financed through the EAFRD and the Ministry of Agriculture (MAA)). The state started funding protection in 2004 and a fully developed set of measures is now available.

The financing is awarded as a grant. A call for projects is opened each year for a set timeframe. Applicants can submit forms online or in paper. One demand is allowed per year which can include multiple measures.

80-100% of the costs of protection measures are covered by the CAP, the remaining 20-0% being borne by livestock owners (depending on measure and location). The French CAP Strategic Plan lays out the measures available and is translated into national law by the decree of 30 December 2022⁶ which sets forth the terms and conditions.

Planned expenditure 2023-2027: 175m € of which 80% 140m € is EU financing.

Interventions: 73.16 investment connected to the protection of livestock against predation and 70.26 protection of flocks against predation (investment and agri-environment measures)

(1) reinforced guarding/enhanced surveillance

Covers the costs of the additional work for the breeder themselves (daily lump sum of 30,75€) or for them to hire shepherds to guard the flock (based on expenditure with ceilings).

(2) livestock guarding dogs:

- 2a: purchase, sterilisation and behaviour testing (flat rates paid for purchase (375€) and sterilisation (250€) and actual costs for behavioural testing within a limit)
- 2b: maintenance (flat rate of 815€ per dog paid with a limit based on the size of the herd)

(3) material investment (electrified parks) (based on expenditure with ceilings);

(4) analysis of the vulnerability of a farm to the risk of predation of herds (based on expenditure with a ceiling of 5000€);

(5) technical support (based on expenditure with an annual ceiling of 2000€, and unit ceilings of 600€ for a training and 150€ for collective training).

⁶ <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000046847661>

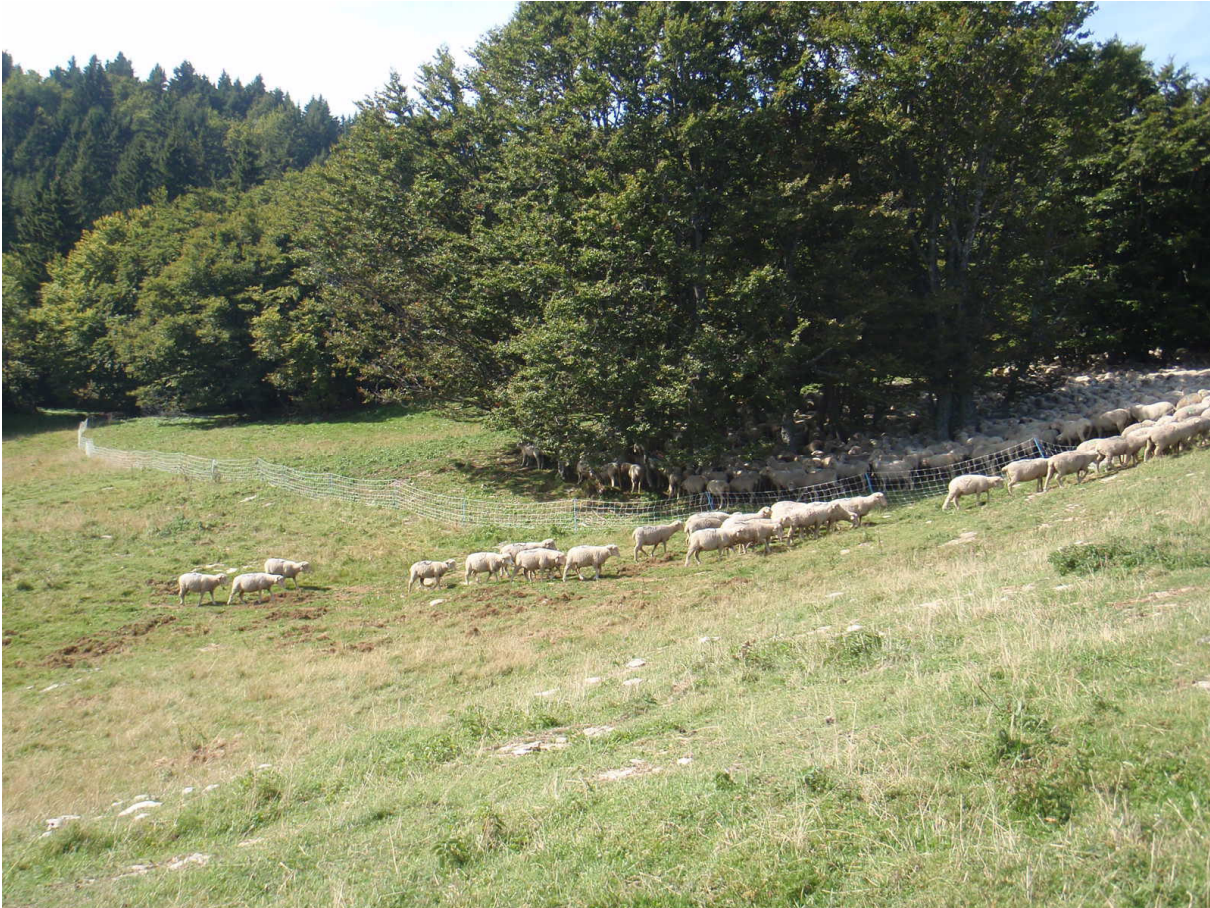


Figure 3. Protected sheep flock (electric fencing) © Patrouiller

These types of expenditure can be combined with each other, by application for aid.

The following beneficiaries are eligible for assistance:

- farmers, individually or as a company;
- pastoral groups;
- breeders' associations
- pastoral land associations;
- trade union boards managing summer grazing;
- local and regional authorities;
- employer groups.

Only sheep and/or goat herds are subject to the above-mentioned types of expenditure under this aid.

The protection measures available depend on the applicant's "circle" or zone, which is set depending on whether the wolf is permanently present in an area.

AIDE À LA PROTECTION DES TROUPEAUX CONTRE LA PRÉDATION PAR LE LOUP
 DÉLIMITATION DES CERCLES POUR L'ANNÉE 2022

France continentale

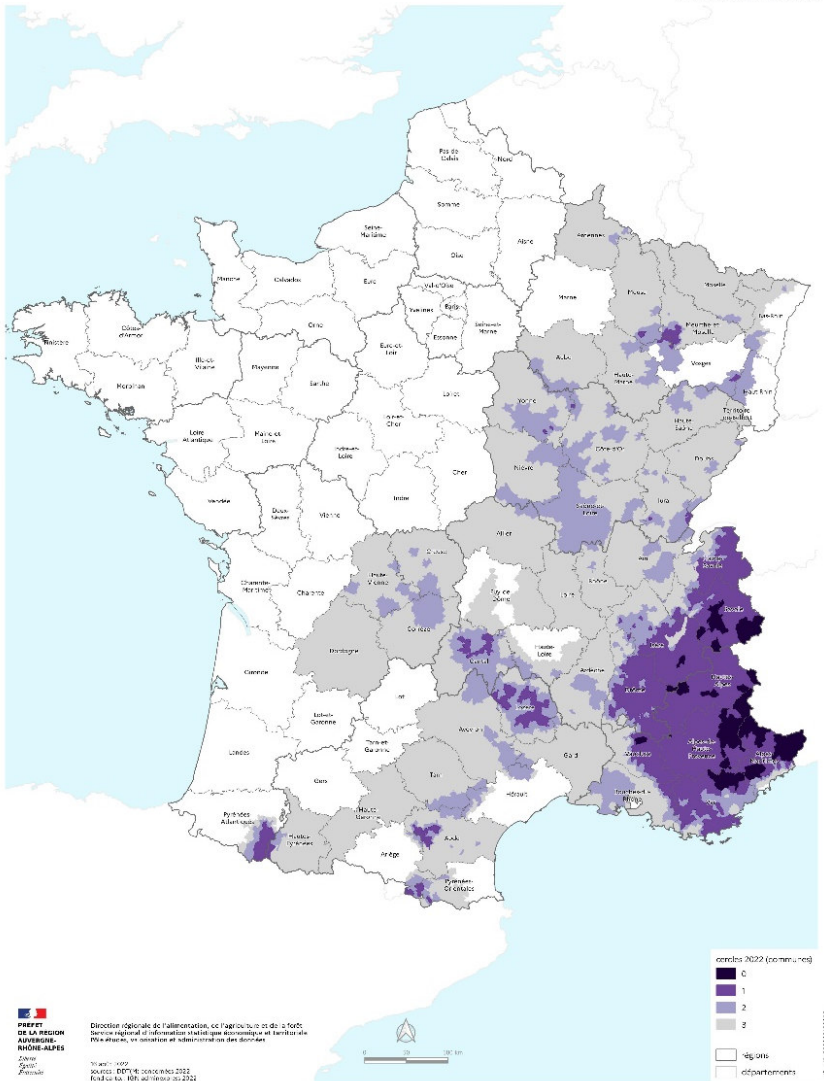


Figure 4. Zonation of wolf presence in France

Circle 0: The zones where predation is highest and high damages occur across multiple years. Two protection measures must be implemented in order to receive compensation.

Circle 1: Areas where predation on domestic livestock has been recorded on one or more occasions in the last two years. All protection measures can be subscribed for, but there is an upper limit on shepherding and dog purchase. Two protection measures must be carried out to receive compensation.

Circle 2: Areas where prevention actions are needed due to the possible occurrence of predation by wolves during the current year. All protection measures can be subscribed for, except reinforced guarding and vulnerability analysis. At least one should be put in place.

Circle 3: Zones of possible expansion of the wolf. One measure can be subscribed for.

Compensation

Compensation is paid according to the decree of 9 July 2019⁷ where livestock breeders have protected their flocks according to the rules in the circle / zone where they are located. There is a table of different compensation levels with around 20 different classes for sheep alone ranging from payments of 58€ for an 8-year-old to 720€ for an organic cheese producing female between 7 months to 7 years. Similar charts are provided for goats, cattle, dogs and hives. Indirect costs are also covered. There is a payment for animals that disappear (20% of the amount of an animal killed) in the case that a fence is broken or the animals are on the alp. There is a payment for indirect losses for those animals in the flock exposed to the attack of 100€ for flocks of 2-100 animals and 260€ for 101-300 animals. An additional payment can be made, depending on exposure, of 40c per animal up to 1200 animals. Veterinary costs can be compensated on the provision of bills.

Data on damages is collected by the DDT and reported to the DREAL which collects and publishes statistics⁸.

Culling

The Decree of 23 October 2020⁹ updates the number of wolves that may be removed from the population under derogation from the Habitats Directive. A maximum level of 19% of the population is set for the number of derogations that can be accorded.

Culling can occur according to a sliding scale depending on the damage and circumstances of an event. At the lowest end of the scale is deterrent measures:

- Deterrent measures
- Defensive shooting - from a single shooter (the shepherd or a hunter);
- Reinforced defensive shooting (a group of shooters who are also allowed to use night vision equipment);
- Removal shooting (support from the wolf brigade)
- Reinforced removal shooting (significant support including from OFB).

The draft action plan 2024-2029 indicates that the conditions for defensive shooting may be made simpler.

Zoom-in: Isère

Isère, in the region of Auvergne Rhone Alps (AURA), is an agricultural region ranging from the plane to the pre-alps (Chartreuse, Vercors and Diois), to the high Alps (Belledonne, Taillefer, Écrins). It is one of two departments spanning the Vercors Regional Natural Park.

Isère includes 6,300 farms with 11,300 people working permanently in agriculture. 63% of the department is mountainous or high mountain, and 38% forestry. From the agricultural areas, 30% is arable (concentrated in the plane), 21% mixed farming, 12% sheep or goats concentrated in the

⁷ Arrêté du 9 juillet 2019 pris pour l'application du décret no 2019-722 du 9 juillet 2019 relatif à l'indemnisation des dommages causés aux troupeaux domestiques par le loup, l'ours et le lynx :

<https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000038746710>

⁸ <https://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/donnees-sur-les-dommages-a3854.html>

⁹ Arrêté du 23 octobre 2020 fixant les conditions et limites dans lesquelles des dérogations aux interdictions de destruction peuvent être accordées par les préfets concernant le loup (Canis lupus) :

<https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000042472061>

mountains and high mountains, 9% cattle for meat, 8% dairy cattle, and 10% other¹⁰. Wolf depredation is therefore focused on mountainous areas.

There are 158,000 cattle in the department and 58,000 sheep. There are around 12,000 cattle producers divided roughly evenly between dairy and meat. 170 breeders have more than 50 sheep and 120 breeders with more than 15 goats.



Figure 5. Mountain sheep flock, Isère © Patrouiller

Damages¹¹

The wolf returned to Isère around 1998 when the first damages were observed. By 2004, damage protection measures were being put in place in wolf territories and their surroundings. Damages started to plateau until around 2012. In 2013, the wolf gained new territories in the department, moving into the Chartreuse. Between 2013-2022, the population expanded into new territories and damages increased to a peak in 2020 when almost all occupiable habitat recorded wolf presence. Since then, damages appear to be decreasing as almost all affected livestock breeders have adopted protection measures.

Although sheep remain the main victim, attacks on calves have increased since sheep have been well protected. Until 2019, they were underreported as the signs of depredation were not

¹⁰ https://aura.chambres-agriculture.fr/fileadmin/user_upload/Auvergne-Rhone-Alpes/110_Inst-Auvergne-Rhone-Alpes/Notre-Agriculture/2018/CA_38/agriculture/AGRESTE_Isere.pdf, <https://aura.chambres-agriculture.fr/notre-agriculture/agriculture-de-isere/>

¹¹ <https://www.isere.gouv.fr/Actions-de-l-Etat/Agriculture-foret-et-developpement-rural/Pastoralisme-Predation>
<https://www.isere.gouv.fr/Actualites/Salle-de-presse/Derniers-communiques/Comite-departemental-Loup-bilan-annuel>

recognised. In general, wolves attack calves differently, not necessarily attacking the neck but potentially first the back legs. Since 2019, when signs of attack were officially recognised, more have been declared. The measures for cattle protection are less well known and not yet financed on a scale similar to sheep but a range of projects and exchanges have been set up building on experiences in Portugal and Italy. Livestock guarding dogs have been put in place for some herds and protective fencing is being experimented with for calves during their first month. Trials have also been carried out with the Hérens cattle breed. Integrating this breed, which is gentle but protective, can help a herd learn how to protect themselves. Hérens also help to calm a herd following an attack.

GPS collars and trackers (linked to the main GPS) can be used on individuals in a herd of cattle or sheep flock. The breeder receives an alert if the herd or flock wanders out of their area or if they start to move in a way that indicates the presence of a predator. This system also has the advantage that, in a mountain environment, the flock can be traced more easily.

Process in the case of an attack

A clear system is set up to show responsibilities between the DDT and OFB / park in the case of protected areas. The DDT is responsible for managing the system of recorded damages and dispensing compensation. The OFB is responsible for carrying out inspections on the ground.

Steps as follows:

- Report of damage by breeder (within 72 hours): hotline provided which is answered in office hours or recorded out of office hours with call back.
- OFB, DDT, parks alert each other to the attack via WhatsApp group.
- Inspection by agent (OFB or park) (within 48 hours) and information recorded (see below).
- Check of information by DDT including calling agent or farmer if inconsistencies are found.
- Information used to determine if wolf can be excluded as the cause of death.
- If wolf cannot be excluded (and there is no technical reason for not compensating – see below), compensation is paid within 2 months.

Information from the inspection is gathered at the site of the attack and recorded in the app “Geopred”¹², managed by DREAL and OFB, which has been in use since May 2023 and allows rapid sharing of information. Information collected consists of a form containing around 60 information fields including:

- Administrative section – where, when, who, size of herd, means of protection (based on a declaration on honour from the breeder).
- Information on the victim(s) – general conditions, state of body, clues about the presence of predators, traces of predation, bite types, consumption. This can also be recorded on a diagram showing where the wounds are. Photos can be taken (compulsory for cattle).

Agents who carry out the inspections are permanent employees of the OFB (throughout the year). In summer, three additional short-term contracts are awarded. These temporary agents receive training and often it is the same individuals who return year after year. The inspectors do not give an opinion on whether a case will be accepted or not in order to clearly separate responsibilities; this is the role of the DDT.

¹² <https://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/geopred-mobile-mentions-legales-a22592.html>

Compensation

Compensation is paid according to the national-level grid.

In Isère in 2023 to date, 267 attacks involving 681 victims were declared and 220 attacks and 611 victims were compensated. Damages are not compensated in the case that 1. wolf can be ruled out as the cause, and 2. compensation cannot be given for administrative reasons, for example when minimum protection measures have not been put in place. Breeders can appeal in the case they do not accept the decision, but the system is now well-understood and there were no appeals in 2023.

Protection

The protection measures available are those described above. Most of Alpine Isère where livestock are present are in circles 0 or 1.

The combination of livestock guarding dogs plus electric fences for night guarding and shepherding has worked well in practice. Dogs have been observed to be the most effective measure in mountainous areas and, in case they are not present, there are more likely to be attacks. The support for shepherding is generally well taken up by breeders, since shepherding is desirable for the better general care of flocks.



Figure 6. Livestock Guarding Dog © Patrouiller

Communication

In Isère, a “Wolf bulletin” is sent to all mayors, administrators, farming representatives, breeders on a weekly basis with an update on the decisions on the outcomes of any depredation cases, the total sum of depredation cases for the year, as well as information on any wolves removed, killed by accident, or illegally killed.

Stakeholders and administrators in the Vercors Regional Natural Park, participated in the EU-funded regional platform which focused on the use of protection measures (especially LGDs) in a territory that has multiple human uses¹³.

¹³ Regional and local platforms (2023) https://environment.ec.europa.eu/topics/nature-and-biodiversity/habitats-directive/large-carnivores/eu-large-carnivore-platform_en#regional-and-local-platforms



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