

Sobre mí: Ecología y comportamiento de carnívoros en paisajes ganaderos



Short communication

Workshop on wolf damage prevention methods

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Photo: Daniel Cara Gil

Background: wolves in Spain

Compared to most EU countries, Spain has relatively large numbers of wolves (*Canis lupus*). After substantial reduction in the 19th and 20th centuries, the Spanish wolf population increased in recent decades [1], with more than 300 packs confirmed present in 2021 according to official figures [2]. Occupied wolf range is limited to the northwest quadrant of the country (Fig. 1), with expansion eastward and southward across the Douro River. In the last decade the number of packs has shown an increase in some marginal areas, although the distribution of breeding packs has remained much the same [3].

According to information reported by regional governments, a total of about 17,000 head of livestock were killed by wolves in 2024, with an increasing trend in recent years, as seen elsewhere in Europe. The most common approaches to wolf management in Spain have included compensating farmers for economic damage and lethal control [4]. Hunting was permitted north of the Douro River until 2021 and was the most frequently detected cause of wolf mortality [3]. South of the river, the wolf is strictly protected, although culling is conducted in special situations, linked with social conflict and/or dam-

age to livestock. Strict protection was extended to the entire Spanish population in September 2021, but this was reversed in April 2025 by a new national law that again allowed consideration of the wolf as manageable/hunttable north of the Duero. This status is also expected to extend south of the river following the downgrading of its protection status under the EU Habitats Directive [Editor's note: see page 9 in this issue].

Non-lethal damage prevention methods have not been sufficiently supported in Spain. Livestock guardian dogs (LGDs) are commonly used and local knowledge of damage prevention is still present in areas where wolves have always been present [5]. However, especially in areas where wolves were absent for a time or their abundance is low, not all farmers are experienced, knowledgeable or adapt their husbandry to wolf presence. Since the approval of the Strategy for the Conservation and Management of the Wolf in Spain in 2005, various administrations have increased investment in damage prevention methods [2].

The implementation of livestock protection acquired special relevance following strict protection of the wolf in 2021. Thanks to enhanced national government funds, regional authorities increased their support for the acquisition or maintenance of, in particular, LGDs and fences,



Fig. 1. An Iberian wolf in NW Spain (Photo: Francisco Javier Lema Fuentes).

and in some cases also for hiring shepherds (Fig. 2). The measures supported and the amounts available vary between regions. Furthermore, there has been an increase in compensation payments, that usually include indirect costs associated with predation (e.g. lost production, extra work). In some regions there are bonifications if preventive measures are used. In other regions, additional support is provided to holdings in wolf areas or those that implement best practices promoting coexistence. In a few regions, technical support is provided to farmers on how to raise and maintain LGDs [6].

Workshop: sharing knowledge

Regardless of the wolf's protection status in Spain or Europe, and in accordance with the current environmental policies promoting coexistence between large carnivores and humans, there is expected to be a greater emphasis on the use of damage prevention measures. Increasing the knowledge of those responsible for managing the wolf population seems to be necessary, as experience on this topic has evolved considerably in recent years.

From 27th to 29th November 2024, the Wildlife Service of the Ministry for the Ecological Transition and Demographic Challenge (MITECO) organised a workshop on wolf damage prevention methods in Puebla de Sanabria, Zamora, NW Spain (Fig. 3). The location was selected be-

cause it is included in the Sierra de la Culebra Regional Hunting Reserve, an emblematic place of coexistence between wolves and humans. Wolves have always lived there, it has high densities of wolves and wild prey, livestock damage prevention methods such as LGDs are commonly used, there is a well-known wolf watching area and wolves are generally accepted by rural communities [7].

The workshop was intended to provide technicians and managers from public administrations of Spain and



Fig. 2. Regional authorities in Spain support the acquisition and maintenance of damage prevention measures such as livestock guarding dogs (Photo: Vicente Palacios).



Fig. 3. Workshop on wolf damage prevention methods held in NW Spain in November 2024 (Photo: Daniel Cara Gil).



Fig. 4. Workshop participants on a wolf watching tour (Photo: Nicolás González).



Fig. 5. Field trip to a sheep farm where livestock guarding dogs, shepherding and electrified netting are used to prevent wolf attacks (Photo: Jess Verstappen).

Portugal with up-to-date information and a space for discussion about the most efficient methods to reduce losses and mitigate conflicts. It comprised five sessions and a field trip. In the first session, several broad topics were presented, from damage prevention methods in North America including the particular experience of a Canadian farmer on how to raise extensive livestock in the presence of large carnivores; the application of damage prevention methods through participative processes; the history and legal frameworks of prevention measures in Switzerland; the importance of having an accurate diagnosis of the situation in terms of wolf predation; and the relevance of livestock management.

Session 2 focused on advances and issues from a research perspective, including cattle management using virtual fencing; technologies with potential to detect wolf attacks based on movement and acoustic patterns; conditioned taste aversion trials; tests of collars emitting deterrent stimuli; and the use of camera trap arrays for early detection of damage. During the third session, technicians and managers from Finland, France, Germany and Slovenia shared their experience in the implementation of damage prevention methods. The fourth session focused on wolf management programmes implemented in the Spanish regions of Castilla y León, Asturias, La Rioja and Madrid.

The workshop ended with an interactive session of dis-

cussions on topics proposed by participants, such as preventive measures appropriate for free-ranging cattle and horses, criteria for prioritising subsidies, managing LGDs, etc. The session began with a talk on current challenges in the use of LGDs and the main lessons learned from the past three decades of the Grupo Lobo LGD programme in Portugal.

A field trip was organised on the third day that began with a morning wolf watching tour (Fig. 4), following which there was a visit to a sheep farm that uses LGDs and electric fencing (Fig. 5) and the Iberian Wolf Centre of Castilla y León. Only one person saw a wild wolf during the tour, but everyone had the chance to see the typical elements of the area: wild prey such as red deer (*Cervus elaphus*) and wild boar (*Sus scrofa*) as well as free-ranging cattle and LGDs with which they share the landscape.

Evaluating outcomes

The workshop had nearly 80 participants, including 18 speakers from 11 countries, about 50 technicians and managers from 11 regions in Spain (Aragón, Asturias, Cantabria, Castilla-La Mancha, Castilla y León, Catalunya, Extremadura, Galicia, La Rioja, Madrid and País Vasco) and technicians from MITECO and TRAGSATEC who organised it. The high number of participants, including representatives from all regions with permanent or spo-

radic wolf presence, shows the high level of interest in the topic. The mood during the event was agreeable, promoting fruitful discussions among participants.

A questionnaire was emailed to all participants after the workshop to ask for their opinions about its organisation, structure, topics covered, quality of talks, knowledge of invited speakers and the field trip. Only 11 replies were obtained, but they were very positive: on a scale from 1 (lowest) to 4 (highest), average ratings for the 29 questions ranged from 3.1 to 3.9, with an overall rating of 3.7. The quality of the speakers (3.9) and their ability to clarify doubts and respond to questions (3.8) were the most positively rated aspects of the workshop sessions, while the field trip (3.8) was also much appreciated. The topics covered (3.7) and accomplishment of the workshop's goals (3.7) were also scored highly by participants, followed by the usefulness of the knowledge acquired for their work (3.5), acquired knowledge (3.4) and interest of the discussion sessions (3.4).

Overall, comments were very positive and appreciative of the initiative to hold the event, its organisation and the support given to participants. The wide geographic representation and high quality of the speakers were also highlighted, as they enabled participants to deepen their knowledge of damage prevention and learn about work on the topic in different countries. Topics that participants thought deserving of a closer look were: EU legislation in relation to managing wolf damage; technical aspects of prevention measures in specific contexts where conflict is high or in wolf expansion areas, considering local constraints (e.g. social, economic or husbandry-related); and the viability and effectiveness of existing measures and strategies, including socio-economic approaches. While it was obvious that prevention measures are indispensable, some thought their use should be a precondition for receiving compensation.

The overview provided by the workshop of the current situation of the wolf in Spain and facilitation of contact among technicians responsible for managing wolf–live-stock interactions was much appreciated. The results of

the workshop were very positive and exceeded expectations. The organisers hope that the sharing of experience and knowledge will be beneficial for wolf management in Spain. We encourage other countries or regions to carry out similar types of meetings.

Acknowledgements

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