

Should we reconsider our approach to flock protection?

Wolf-flock contacts: relations and resulting pressures

Comments on the [summary diagrams](#)



Sharing the same territory

Over the course of a season or even the whole year, depending on context, wolves and flocks share natural areas that are used for pastoralism. Comprising both direct and indirect contact (auditory and olfactory communication, unwanted or voluntary meetings, confrontations...), relationships between wolves, flocks and protection measures (in particular Livestock Guard Dogs – LGD), are almost permanent. They share the same territory.

The vulnerability of the flock: the wolf-factor is decisive

From a pastoral point of view, the wolf is a serious disruptive element for the system, which becomes vulnerable to predation.

However, the analysis of the vulnerability of a flock and/or of the environment in which it grazes is complex. It is difficult to explain repeated attacks on the same flock while referring only to classic vulnerability factors (at least those identified and used until now).

The “theoretical” vulnerability of a pastoral system, whether structural (e.g. type of protection or equipment used) or circumstantial (e.g. fog, injured LGD...) is not enough to fully evaluate the “wolf-risk”. A high vulnerability does not necessarily correlate with a high degree of predation, and vice versa. For the same level of vulnerability, the frequency of attacks can vary substantially.

Considering our preliminary results, it appears that, regardless of the pastoral system or the level of protection, the most decisive factor for vulnerability is, logically, the wolf itself. We must therefore take into account its “culture”, its personality, its current needs and intentions, the structure of its group... and all the relations it has before the act of predation, in its daily life on the pasture, its contacts with the flock and protection devices.

Graduated wolf-pressure

The pressure applied by the wolf on the pasture is omnipresent but not linear; there is a gradation in the intensity of the “wolf-risk”. Over the course of their territory-sharing, the wolf poses a threat of differing degrees to the protected flock, independent of the latter’s contextual vulnerability.

The resulting “wolf – protected flock” system is organised around a complex game, rich of opposite behaviours, made up of interactions and feedback, and which goes from relative and mutual indifference up to the act of predation.

In such a scheme, the “predation pressure” is only one of the possible permanent and complex interactions between the predator, the prey and the protection measures.

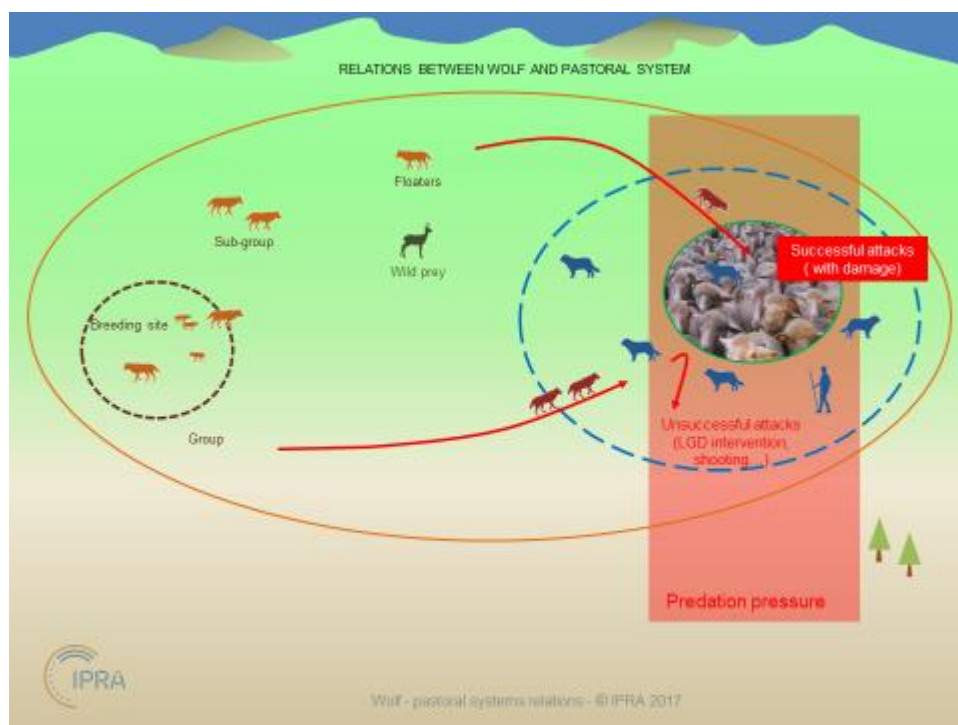


Figure 1: Localisation of the predation pressure in the wolf – pastoral system relation (extract from summary diagrams)



Our preliminary results suggest that it is in the “invisible” part of the relationship

Improving the efficiency of protection means increasing its deterrent effects in the

Up to now, the analysis of the efficiency of flock protection only looked at a tiny part of the interactions between predators, prey and protection measures. This limited approach has hindered our understanding of repeated attacks on a same flock. Our new approach clearly demonstrates that it is necessary to define and better take into account the wolf-factor (in all its forms) if we want to improve the protection of flocks and as a result reduce the damage caused by wolves.

TERRITOIRE de LOUPS

TERRITOIRE PASTORAL

Floater

Site de reproduction

TROUPEAU

CPT

Gardien

Zonage de PROTECTION

Attaques réussies

The wolf approaching the flock: possible scenarios

LGD - wolf interactions

Lupine activity on a meeting site

Loup vs Système pastoral

Videos and behavioural analysis

Relations « en routine »

Interactions loup-protections

Pressions

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Relations loup-système pastoral - © IPRA 2017



Relations between wolves and protected pastoral systems- © IPRA 2017