

The Iberian wolf lives close to humans more for refuge than for prey

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This is an Iberian wolf. Credit: Netícola - Raúl A

The Iberian wolf lives in increasingly humanised landscapes, with limited food resources and its presence is not always welcome. But, according to Spanish researchers, food availability plays a secondary role compared to landscape characteristics, which can offer refuge and allow wolves to remain in human-dominated environments in Galicia.

The habitat of the Iberian wolf (*Canis* <u>lupus</u> *signatus*) varies greatly across the <u>Iberian Peninsula</u> and its diet revolves around what is available, ranging from <u>wild animals</u> to domestic waste. In contrast, this <u>predator</u> is able to survive in humanised landscapes where characteristics



provide them refuge from humans.

"Although the wolf boasts highly adaptable strategies for survival, landscape is the factor we have analysed that best explains their distribution across Galicia," as explained to SINC by Luis Llaneza, researcher at Asesores en Recursos Naturales (A.RE.NA.) and lead author of the study published in the '*Diversity and Distributions*' journal.

His research has allowed for the analysis of the relative influence of landscape attributes, human presence and <u>food resources</u> and the existence of wolves over an area of 30.000 km2 in the north-west of the Peninsula.

The scientists concentrated on indirect signs of the animal to identify their distribution in Galicia. In total, 1,594 excrement samples were analysed, which were then verified using DNA molecular analysis to locate them in the territory.

The results revealed that landscape properties are decisive in terms of animal safety at a level of 48%, whereas the presence of humans (buildings and roads) is influential at a level of 35% and <u>food availability</u> as 17%. Llaneza says that "as long as tolerated by humans, the wolf can be found in any place where there is refuge and food."

According to the scientists' model, the presence of wolves would increase if there were more semi-<u>wild horses</u> and wild ungulates. As the authors outline, "the amount of semi-wild horses in Galicia could be a key factor determining the presence of wolves in areas where wild prey or other food sources area not so abundant."

A safe refuge for the wolf

After studying the effect of altitude, land orography and refuge



availability, researchers demonstrated that these mammals require their habitat to be a plant mosaic containing vegetation of more than 50 centimetres in height (bushes and shrubs) to hide in.

"These animals remain in Spain and little by little we are beginning to understand how they survive in human-dominated areas," says Llaneza. The study reveals that wolves choose high places that are difficult to access, such as areas where vegetation provides refuge from humans.

"The density of vegetation allows wolves to go unnoticed by humans", adds the researcher, who recalls that humans are the known cause of wolf death in 91% of instances. Some 65% of <u>wolves</u> are killed on the road, 20% by poaching and 6% by legal hunting.

With the participation of the University of Santiago de Compostela and the Doñana Biological Station (EBD-CSIC), the research team concludes that a set of variables and data analysed explains only 20% of wolf distribution in <u>Galicia</u>. Their next undertaking will be the study of other factors that influence wolf survival in humanised areas, such as the extent to which they are tolerated.

More information: Llaneza, L.; López-Bao, J.V.; Sazatornil, V. "Insights into wolf presence in human-dominated landscapes: the relative role of food availability, humans and landscape attributes". *Diversity and distributions* 18 (5): 459-469, May 2012. DOI: 10.1111/j.1472-4642.2011.00869x

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