

Restoration of drove roads to enhance biodiversity and connectivity of Natura 2000 sites in Spain

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Abstract (máx. 300 words):

Drove roads (DRs) are the traditional routes used by herders and livestock for their seasonal movements in search of the most productive pastures. Shaped by traditional grazing and protected against ploughing for centuries, DRs combine grasslands with woody patches, hedgerows and other original vegetation types.

DRs exert important ecological effects at different spatial scales. These effects are critically linked to the maintenance of livestock movements. The progressive abandonment of transhumance has fostered invasions of DRs with crops, human built infrastructures, etc. Landscape fragmentation and isolation of Natura 2000 sites has been recognized as a major issue for conservation in Europe, and is threatening the relevant role of DRs as ecological corridors.

The general goal of LIFE CAÑADAS project is to build the scientific and practical steps to enhance the role of the Spanish network of drove roads that provides connectivity between Natura 2000 sites, by means of improving their conservation status and their associated ecosystem services, restoring their multi-functionality and assuring their adequate and sustainable management. The project will be developed at two spatial scales (Fig. 1). At the larger, national scale, we will focus on the "Cañada Real Conquense" a 75m-wide corridor that stretches along 410 km from the Sierra Morena (Jaén), to the Montes Universales (Teruel and Cuenca). At the regional scale we will focus on the network of the Autonomous Community of Madrid, which comprise 4,200km of DRs.

In this contribution, we present the LIFE CAÑADAS plan to restore the connectivity and functionality of selected DRs to enhance their role as biodiversity reservoirs and ecological corridors within and between Natura 2000 sites. Further, we propose to recover the traditional extensive livestock grazing of the DRs, preferably through transhumant flocks, in those areas where herbivore management is critical for maintaining the DR biodiversity and functionality.



Keywords: Biodiversity, Ecosystem functioning, Ecosystem services, Landscape, Restoration strategy/planning.



Fig. 1 Location of the study areas of the LIFE CAÑADAS project.