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Trend of Mediterranean oak forests in Andalusia 1956-2007

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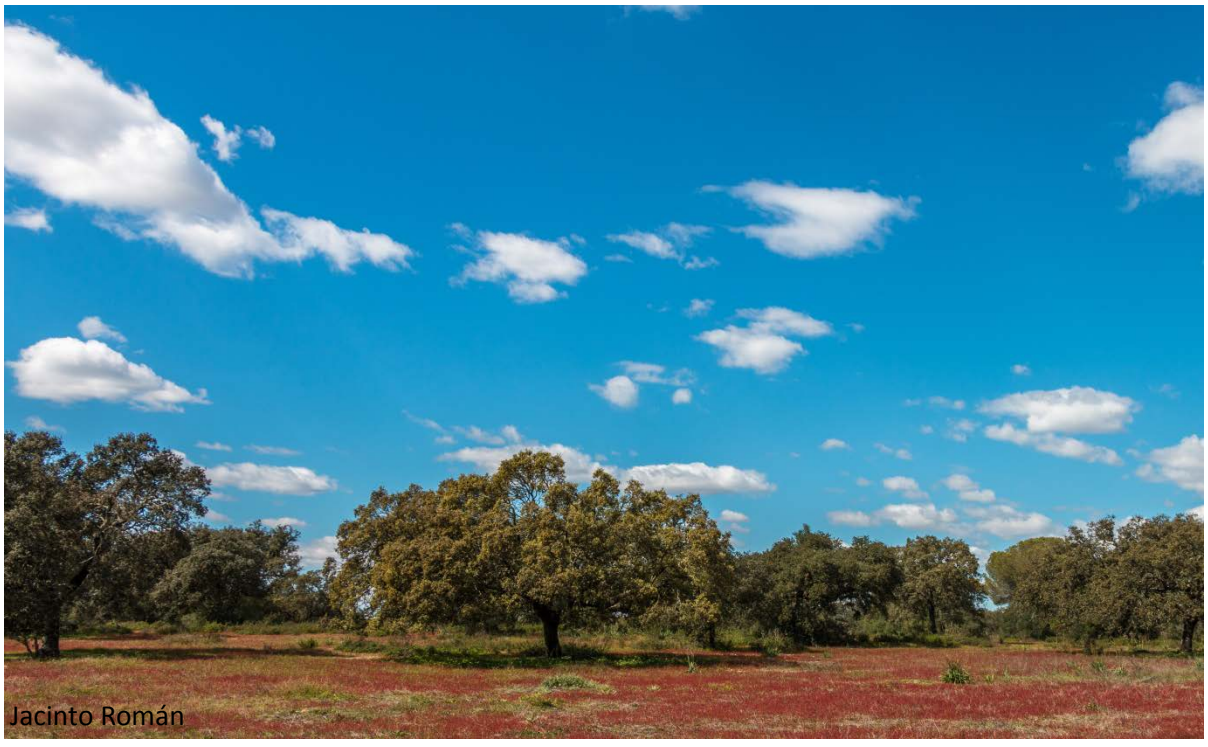
Introduction and methods

Mediterranean forests are well known to provide a wide array of public goods, services and externalities: timber, cork, acorns, honey, watershed protection, landscape quality and soil conservation among others (1, 2, 3). We used information on land uses available through the web portal of the Regional Environmental Network of Andalusia (REDIAM) to evaluate the temporal trend experienced by Mediterranean forests in Andalusia. As forested patches, we considered those where stands of *Quercus* spp (mainly *Quercus rotundifolia* and *Q. suber*, but also *Q. faginea*, *Q. pyrenaica*, and *Q. canariensis*) were found in any of the years considered: 1956, 1999, 2003 and 2007. Afterwards, we evaluated temporal changes in land uses in the patches where the presence of *Quercus* spp were ever recorded. Such changes were later classified as losses or gains depending on the presence of *Quercus* spp in the map of 2007.



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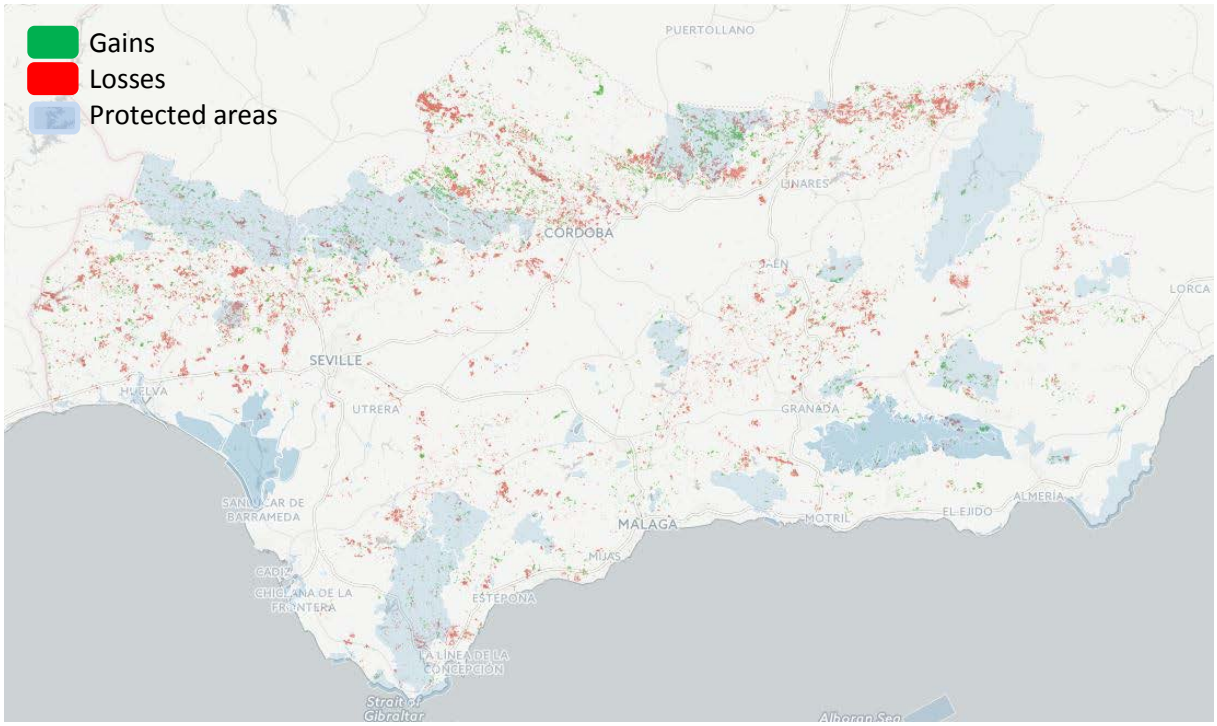

Results

A 13% loss has been documented for *Quercus* sp. formations, considering both mediterranean oak forest, and dehesas (4). This was mainly due to the conversion into agroecosystems, urbanization, and forest fires (4). When considering only protected areas, no net losses were detected, but a slight increase in the coverage of *Quercus* spp. We found quite heterogeneous results when focusing in particular parks. For instance Despeñaperros Natural park, North of Linares has lost patches of *Quercus* spp equivalent to the 9% of its total surface, probably due to the highway construction and new layouts recently performed. On the opposite, the Natural Park of Huetor, North of Granada has increased the coverage of *Quercus* spp by means of almost 5% of its total surface. The web-based tool is designed to show this information when placing the PC mouse over the selected park, helping both the regional government and park managers to assess these changes, evaluate their potential impacts and plan future management actions on the light of this information.

References

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