

A study on Bonelli's eagles urges a reduction in human-wildlife conflict

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A study carried out by the University of Alicante (UA) by Vertebrate Zoology Research Group and the University of Valencia (UV) Cavanilles Institute on Bonelli's eagles warns of the serious impact that recreational activities in natural parks have on this endangered species, and urges governments to take actions to reduce human pressure on wildlife. The study has been published in journal *Biological Conservation*.

Conflicts between humans and wildlife are a growing concern in conservation biology. The number of people living in <u>urban areas</u> is increasing rapidly around the world, and consequently, the temporary pattern of occupancy of natural areas for recreational use is also changing, resulting in an increasing concentration of people over the weekends and holidays in wilderness areas. This is particularly evident in rich societies, where more people visit natural areas on holidays and weekends, causing a nuisance to wildlife in the so-called "weekend effect."

In order to evaluate this type of disturbance, researchers Vicente Urios (University of Alicante) and Pascual López and Arturo M. Perona (University of Valencia) have been monitoring the behavioural changes of 30 Bonelli's eagles in natural parks in the provinces of Valencia and Castellón during weekends, when there is a greater human presence in their territories. Bonelli's <u>eagle</u> is a highly endangered species in Europe with a <u>high mortality rate</u> mainly due to electrocution, poisoning and shooting.



To conduct their study, the researchers analyzed GPS telemetry data from transmitter-tagged eagles, a satellite tracking technology that accurately reports the position of Bonelli's eagles every five minutes. Thanks to this technology, the distance that the eagles travel can be calculated on a daily basis, and it has been verified that during the weekends, when the human presence in their territories is greater, eagles are forced to move from one place to another, covering greater distances to find food.

Something that might seem incidental has relevant consequences for this endangered species, as these eagles are forced to stay further away from their nests during the <u>breeding season</u> (with the consequent increase in the risk of failure in reproduction), greater energy expenditure, greater difficulties in finding prey and greater probabilities of finding human infrastructures that are dangerous, such as <u>power lines</u>.

In light of this work published in the journal *Biological Conservation*, researchers urge conservation measures aimed at reducing conflicts between humans and wildlife, including the space-time limitation of recreational activities such as hunting, climbing and hiking, among others, especially during the most critical periods of the year (incubation and breeding). It is, therefore, necessary to find a healthy balance between human enjoyment of nature, taking responsibility and showing respect, researchers stated. The GPS data came from telemetry studies of unprecedented accuracy. The researchers concluded that this information should be incorporated into the conservation plans of the most endangered species in order to manage this type of conflict more efficiently.

More information: Arturo M. Perona et al. Holidays? Not for all. Eagles have larger home ranges on holidays as a consequence of human disturbance, *Biological Conservation* (2019). DOI: 10.1016/j.biocon.2019.01.010



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