Wildlife Corridors: Connecting protected areas

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Abstract

The loss, degradation and fragmentation of habitats are the main threats to the survival of many species, with the consequent reduction on biodiversity.

To reverse this biodiversity loss, it is important to guarantee the connection between the protected areas to allow migration of species and genetic exchange between populations in the fragmented habitats. Presently, the emerging climate change could push the species outside of protected areas, this migration could only be possible on a favourable territory.

This project aims the identification of corridors between protected areas enabling the migration of wild species. To achieve this goal, it will be developed and implemented an innovative methodology based on spatial modelling of environmental disturbances resulting from human presence and activities. This methodology will rely on the generation of a geographic surface representative of the difficulty wild species have to get far away from protected areas. This gradient constitutes the basis for the generation of scenarios with the identification of preferred corridors to cross between the protected areas.

We intend to test this new methodology through the study of the location and movement of the Iberian Wolf. The identification of ecological corridors is considered as an important factor to help the persistence of endangered species, including the Iberian Wolf and, simultaneously, contribute to increase the biodiversity of the region, within and outside the protected areas.