Using the Brown bear (*Ursus arctos)* as an indicator species for landscape connectivity - a tool for spatial conservation prioritization

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Romania hosts natural landscapes outstanding in Europe for their low degree of fragmentation. Alike other new member states of the European Union, Romania currently undergoes a considerable increase in transport infrastructure development. Despite of European Union conservation regulation the danger of underrating landscape conservation requirements in favour of infrastructure development is immanent with periods of industrial improvement. In order to prevent irreversible habitat destruction, a sound balancing of infrastructure planning and conservation issues is required from the outset. The requirements of adequate conceptions range from implementing mitigation measures on regional level to strategies for fragmentation mitigation on national and supra-national level. The maintenance of functional habitat networks is formulated as a demand of the European Union's conservation regulation. To fulfil the demand means to ensure ecological connectivity for species, communities, and ecological processes. However, implementation of this mandatory demand depends on effective tools for spatial conservation prioritization and on data adequate to represent relevant landscape patterns. Ecological data gathering on a landscape level is complex and costly. Therefore, our research strives to develop operational conservation prioritization schemes based on data sets and information currently available for Romania. In order to evaluate current conservation planning, in a first step we combine data sources for Brown bear (*Ursus arctos*) distribution – as an indicator species for large connected areas – with existing and planned spatial distribution of nature reserves. This data, interfaced with transport infrastructure (existing and planned) data will provide a first concept of fragmentation "hotspots" on the national level. The result is a scheme that is meant to be permanently refined by additional ecological and socio-economical data in order to provide a tool for planning and decision making, permanently based on the best available information.