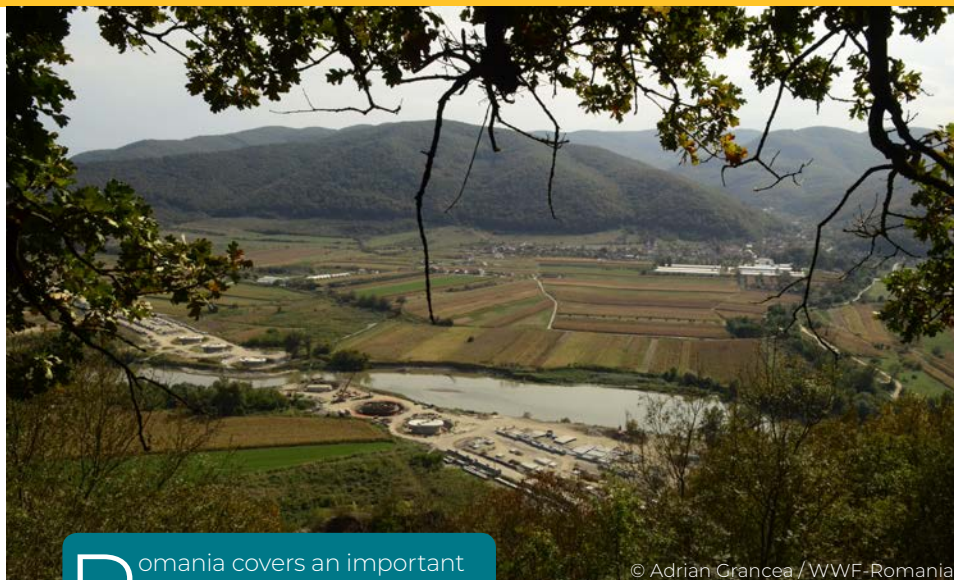




## A 2020 perspective on ecological connectivity in the Carpathians

### ROMANIA



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Romania covers an important surface of the Danube-Carpathian region, one of Europe's last remaining strongholds for the large carnivore species - grey wolf, Eurasian lynx and brown bear, - protected under EU law. Unfortunately, ongoing and projected economic growth in the region tends to go hand in hand with poorly planned infrastructure development and urbanization, creating barriers for large carnivore corridors and leading to increased fragmentation of their habitats.



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#### Techniques and equipment used for identification of ecological corridors

Depending on the particularities of each species, monitoring can be done with the help of:

- » motion sensor cameras
- » drones equipped with cameras
- » bio-acoustic stimulation
- » snow and mud-tracking
- » network of volunteers (e.g. park rangers, hunters, foresters)

#### Mapping ecological corridors The Apuseni pilot area example

#### Results of connectivity modelling using Linkage Mapper (LM) based on available data

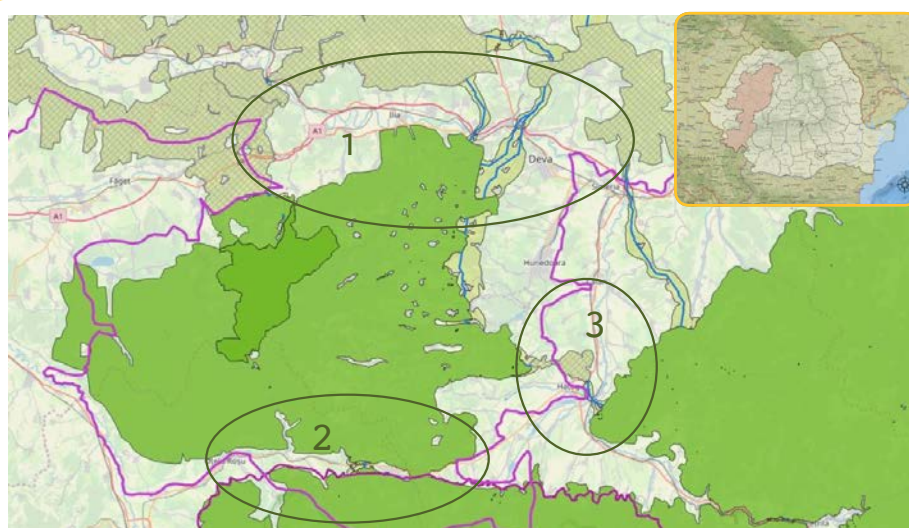
**Connectivity goal:** to connect Apuseni Mountains with South-Western Carpathians. Delineation of corridors in the Northern part of the Apuseni Mountains is limited by an agricultural landscape with dense settlements and linear barriers.

#### Ecological corridors

In order to identify ecological corridors in Piatra Craiului National Park and the Apuseni Mountains-South-Western Carpathians - the two pilot areas of ConnectGREEN in Romania - large carnivores play the role of "focus species" for monitoring, due to their daily and seasonal movements across the landscape which can be tracked and documented by using state of the art techniques and equipment.



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Apuseni Mountains – North, Mureş river and A1, objective approach  
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#### Legend:

<b>purple</b> – border of the pilot area	<b>blue</b> – axes of migration corridors by LM
<b>green</b> – core areas	<b>yellow</b> – polygon form of migration corridors
<b>hatch</b> – stepping stones as part of corridors	

# Legal status of ecological connectivity

The Romanian legislation defines the **ecological network and corridors** and recognizes the **importance of ecological corridors**, which should be identified and established as areas of major importance for wildlife.

## Legal definitions

**Ecological network** of protected natural areas represents the ensemble of protected natural areas, together with the ecological corridors<sup>1</sup>.

**Ecological corridors are those areas which, due to the linear and continuous structure**, such as rivers with their shores, or due to the functions of refuge, such as forest curtains, natural shrubs, natural vegetation on the marginal lands of agricultural crops, along the communication paths road and rail, small areas of forest or wetlands, **are essential for migration, dispersal of wild species and for genetic exchanges between populations of the same species.**

## Legal and implementation barriers

- »no established methodology for planning ecological corridors
- »difficult communication between different stakeholders; conflicting interests
- »no monitoring (officially declared) to determine the preservation of ecological corridors
- »gaps in protected areas policies
- »irregularities and insufficient regulations and sanctions in spatial planning for the protection of natural heritage
- »conflicts of competences between authorities, poor implementation of legal provisions
- »problems in urban ecosystems

## Spatial planning regulations

**Protected natural areas and ecological corridors are mandatory to be highlighted** by the National Agency for Cadastre and Real Estate Advertising **in national, zonal and local urban and spatial plans, in cadastral plans and land books, as well as by the central public authority for agriculture.** The spatial and urban planning legislation<sup>2</sup> specifies that **territorial management aims to ensure the protection of natural and built landscapes, biodiversity conservation and the creation of ecological continuity.**

By law, the purpose of spatial planning is to harmonize the economic, social, ecological and cultural policies at national and local level, one of its objectives being a **sustainable management of the landscape** - a basic component of natural and cultural heritage and natural resources.

## Biodiversity regulations

The National Strategy and Action Plan for Biodiversity 2014-2020 showed the importance of identification, designation and establishment of ecological corridors and landscapes, as areas of major importance for flora and fauna.



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## Implementation lags behind

Despite being clearly defined and their importance recognized, the legal and procedural framework in Romania lacks an official methodology for the identification of ecological corridors, which has made the implementation of the above mentioned provisions not possible for almost more than 13 years already.

In this context there is an **urgency that the responsible authorities** lead my Ministry of Environment, Waters and Forests to **elaborate and approve the so much needed methodology for identification and designation of ecological corridors, involving all relevant stakeholders.**

<sup>1</sup> Emergency Ordinance no. 57/2007 on the regime of natural protected areas, conservation of natural habitats, wild flora and fauna with subsequent modifications and completions

<sup>2</sup> The Law no. 350/2001 on Spatial and Urban Planning