

# EU BIODIVERSITY CORRIDORS

CON EURAC RESEARCH & WAGENINGEN UNIVERSITY RESEARCH

## CRITICAL ISSUES

Protected Areas and the ecological connections between them are the backbone of biodiversity conservation, because they provide wild species with suitable spaces to reproduce, rest and feed on, and guarantee the so-called nature *continuum*, therefore the ability to provide ecosystem services.

Today the most important areas for ecological connectivity are trapped in a matrix caused by anthropic impact which leads to a decrease in their biological value.

Furthermore, EU-funded research projects on ecological connectivity often result in a set of maps and recommendations that are only rarely implemented in the field.

The EU biodiversity strategy "Bringing nature back into our lives" approved by the European Parliament has two important objectives to be achieved by 2030: the objective of improving the conservation status and the protection of 30% of the EU territory ( of which 10% strictly protected area).

The EU explicitly mentions the Trans-European Nature Network, which should be strengthened and upgraded. To achieve the improvement of the status of 30% of the species and habitats mentioned in the Habitats Directive, it is highlighted how necessary and urgent it is to identify important nodes of the ecological network and all its connectors, to protect them accordingly.

## INTERVENTION AREA

Through a large-scale scientific study it is possible to define concrete projects for the implementation of ecological connectivity in the various European countries, on which to mobilize public and private resources that guarantee the effective implementation of the measures necessary to restore the balance of biodiversity.

## INTERVENTION

We intend to draw a map of priority solutions for connecting existing protected areas in Europe, of which the Natura 2000 network forms the backbone. This objective is achieved by improving the connectivity of fragmented landscapes, developing corridors, taking into account the overall landscape and the state of biodiversity degradation. This is done on a scientific basis, identifying the best opportunities to improve connectivity and strengthen the network.

This project will allow us to develop a:

- 1) Complete analysis of the current trans-European natural network (state of the art and systemisation of all existing studies).
- 2) New mapping on a European scale, with identification of the priority areas of intervention for conservation and of the barriers in the ecological network.
- 3) Contextualisation of the results and proposals for interventions on selected pilot sites, with the development of technical guidelines for the transfer of activities in the entire trans-European ecological network.

4) Socio-economic analysis to define costs and benefits of habitat restoration, conservation and management actions.

5) Evaluation of financing options for interventions in the identified sites, and involvement of national and international institutions for the identification of the most suitable legislative instruments to give concrete application in individual countries.

We have commissioned the institutes Eurac Research (European Center for Research on Environment/Health/Innovation) and Wageningen Environmental Research (Research Center of the University of Wageningen in the Netherlands) to carry out a general feasibility study with the identification of the first corridors on which it is possible to intervene to create a trans-European biodiversity network, that extends and connects the protected natural areas that exist today in Europe. The objective is therefore to develop a large-scale scientific study in the definition of the important European ecological corridors, making it possible to define concrete projects to connect fragmented habitats.

In order to carry out the projects identified by the study, in addition to the concrete commitment of the Capellino Foundation, it will be necessary to mobilize international organizations together with public and private resources to guarantee their effective implementation.

A first step in this direction has already been taken in Germany, and is represented by the project that has just started for the renaturalization of the Große Laber river: "Danube Biodiversity Corridor in Bavaria".

#### **DURATION & BUDGET**

- Duration: 1 year (renewable for 5 years) starting from 01<sup>st</sup> April 2023

- Project budget: €175,328.00

#### **PARTNER**

EURAC Research is an advanced non-profit and European research and training centre, founded in 1992 with a pro-European vocation. EURAC's activities include national and international projects and direct collaborations with public and private clients, to develop innovative and concrete solutions on a global level. EURAC is internally organized in 11 Research Institutes which carry out research activities in various fields to face the most demanding challenges of the future. They are part of international research networks with partners in more than 56 countries spread over five continents. The research centre works with international organizations such as the Alpine and Carpathian Convention, the United Nations Environment and Development Program (UNEP & UNIDO), the European Space Agency (ESA) and other space agencies. Eurac Research is the only site of the United Nations University (UNU) in Italy. It also collaborates with the Council of Europe and other European institutions.

Wageningen Environmental Research, is an institute for practical, innovative and interdisciplinary international scientific research, which is part of Wageningen University & Research (WUR). It offers a combination of scientific research in many fields related to the "green world" that surrounds us. It contributes to a sustainable way of interacting with our environment by developing nature-based solutions to spatial planning problems, including soil, water, atmosphere, landscape and biodiversity, on global and regional scales. They work closely with the Natura 2000 Network and with national and international partners such as Partnership for European Environmental Research (PEER), Global Water Partnership (GWP), World Water Council (WWC), Netherlands Water Partnership (NWP), Landscape Europe, Climate Change and Biosphere (CCB), the European Center for Nature Conservation (ECNC), the European Forest Institute (EFI) and many others.