

Preparatory Actions for Implementing the Local Crosssectoral Operational Plan – Pöttsching, Alpine-Carpathian Corridor, Austria

Part of Output T2.3

Environment Agency Austria & WWF Central and Eastern Europe Florian Danzinger, Christophe Janz, Hildegard Meyer

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1. Introduction

Pöttsching was one of the first constructed green bridges to maintain ecological connectivity according to the Action Plan of the Alpine-Carpathian Corridor Project (link). The green bridge 'Pöttsching' is located in the Pannonian climate region and guarantees the continuity of the Alpine-Carpathian corridor.

The Pöttschinger forest is located in front of the Rosalia mountains. The green bridge crossing the S4 motorway is located in a large contiguous forest area and plays an important role for the restoration of the continuity of the Alpine-Carpathian corridor. The crossing connects natural deciduous forests (oak mixed forests) and old forests on both sides. The crossing itself was designed to resemble a forest clearing.

The so-called "Wiener Neustädter Pforte" ("Wiener Neustadt Gate") is a 13 km wide valley between the Rosalia mountains in the south and the Leitha mountains in the northeast. Arable land and vineyards dominate the valley. This section is one of the most critical bottlenecks in the Alpine-Carpathian corridor, although wildlife migration is nonetheless still possible. The transversal highway A3 and the intersecting expressways S4 as well as S31 represent a major barrier in this area. In addition, the metropolitan areas of Wiener Neustadt in the West, Eisenstadt in the East as well as Mattersburg in the South have increased significantly in recent years.

The second green bridge in the Pöttsching pilot area is situated a few kilometres to the north-east close to the municipality of Müllendorf. Unlike the Pöttsching green bridge, this ecoduct crossing the A3 highway is situated in the midst of agricultural fields and offers little to no landscape structures in the vicinity to guide wildlife to the crossing point.

The Leitha mountains, whose highest elevation reaches 484 m, is located in the southeast of the Vienna Basin. The landscape is dominated by forests and is a large coherent core habitat for red deer. The hilly landscape is an important stepping-stone within the Alpine-Carpathian corridor. There are no major infrastructure barriers in this area. The northeastern part is protected as Natura 2000 area "Nordöstliches Leithagebirge", one part belongs to the nature park "Neusiedler See-Leithagebirge".



The Austrian SaveGREEN team started a comprehensive programme according to the Cross-sectoral Operational Plan (CSOP, Output T2.2) engaged with stakeholders and set up a monitoring system that allowed for comparing the functionality of the two green bridges as well as the open agricultural and forested landscape in between in order to elaborate suggestions for measures that would improve wildlife migration in the area in the context of current developments (establishment of economic centres, housing etc.). A detailed description of the pilot area can be found in the CSOP Pöttsching uploaded on the project website (www.interreg-danube.eu/savegreen/outputs).

The most important task was to define the ecological corridors in the area surrounding the green bridges, as well as the threats, and raise awareness among the local public where there is no collaboration between the different sectors as well as between the different levels of government with regard to spatial planning. Recommendations were elaborated and presented to local stakeholders.

Stakeholder analysis and results, description of contact effort and methods

The Austrian project partners Environment Agency Austria and WWF Central and Eastern Europe set up a small working group together with our Associated Strategic Partner, the Ministry of Climate Action (BMK), the Austrian Motorway Company (ASFINAG), and the local hunting association. In the beginning, we primarily met online to coordinate our efforts and reached out to local players later in the course of the project, when Covid restrictions became looser.

Meetings were held with landowners whose land was identified as falling into the areas of ecological corridors in order to request their permission for the monitoring of wildlife on their property. One of the most important players in this regard was the Esterhazy Betriebe GmbH, a regionally important large-scale landowner who owns several of the identified plots of land.



To support the outreach work to the landowners and in order to establish a working relationship with an important stakeholder in their own right, a meeting was also held with the local hunting association to inform them about the project and ask for collaboration related to the monitoring activities.

Exchanges with the local landowners and hunters allowed the Austrian SaveGREEN team to gain some insights about the local perception of wildlife and crossing structures, and some knowledge about wildlife behaviour around the two green bridges in the pilot area.

In spring 2022, the Austrian project partners invited the project consortium and external experts into the region to the Transnational Experience Exchange Workshop in order to discuss the functionality of the green bridges in the context of their surroundings. The field biologist and a local hunter shared their experience, a knowledge that was taken up into our activities and research.

For the press field trip held on 25 October 2022, the EAA visited the Müllendorf green bridge together with a journalist from the Ö1 radio station to create a 5-part radio series on the importance of ecological connectivity, possibilities to safeguard and restore it, and the activities of SaveGREEN in this regard.

3. Communication activities

3.1 List of meetings held with main outputs thereof

- 17 September 2021: Project introduction to local hunting group. EAA on-site
- 4 February 2022: Meeting with the most important landowner in the area, Esterhazy GmBH to ask for the permission of setting up cameras, which was not allowed in a first meeting. EAA online
- 30 May 1 June 2022: Transnational Experience Exchange Workshop including a field trip into the pilot area.
- 25 October 2022: Press field trip with Ö1 radio reporter for 5-part radio series



Spring 2023: Presentation of monitoring results for hunters and landowners, EAA on-site

3.2 Transnational Experience Exchange Workshop (30 May - 1 June 2022)

The aim of the workshop was to discuss the Austrian situation of ecological connectivity with the project consortium, external experts and some local stakeholders. The Austrian project partners presented different aspects of the Cross-sectoral Operational Plan; the Austrian Motorway Company presented on how they construct green bridges and maintain/manage them. A field trip took the participants to the two green bridges Pöttsching and Müllendorf, where a local hunter explained their functionality from his point of view. He pointed out the many changes that the surrounding landscape had undergone, like reducing landscape elements important for wildlife migration, the growing area of new settlements and artificial lakes, and new economic centres. The field biologist introduced the monitoring set up including the noise and light sensors.

The conclusion was that in case the economic development of the area in the Alpine-Carpathian corridor would proceed further, the risk of losing wildlife corridors would increase. It is not easy to make clear to the decision-makers that the corridors are important for humans as well. Furthermore, as there is no legislation for ecological connectivity all actions are based on voluntary efforts.

An article was published in the local newspaper of Eisenstadt after the event.



3.3 Press field trip

The press field trip on 25 October 2022 was organised by the EAA in cooperation with the radio journalist Lothar Bodingbauer, who hosts the Ö1 radio series 'Moment Leben Heute'. As one of the primary state radio channels, Ö1 reaches a large listenership from all over the country.

Over the course of the day, the EAA team consisting of Roland Grillmayer and Petra Kestler, and Mr. Bodingbauer visited the Müllendorf green bridge situated in one of the two Austrian SaveGREEN pilot areas: Pöttsching.

In five episodes, which were aired in the weeks following the interview, Mr. Grillmayer laid out the role of green bridges and the importance of ecological connectivity, the importance of connecting landscape structures for migrating wildlife, the fragile balance of barriers and connecting elements, the reasons behind wildlife migrations, and the aims of the SaveGREEN project.

Each episode had a specific focus:

- 1. Green bridges
- 2. Landscape structures and their relevance for migrating wildlife
- 3. Connectivity and barriers
- 4. Why do wild animals migrate?
- 5. The SaveGREEN project



Figure 1 Roland Grillmayer, EAA, during the interview © Petra Kestler, EAA

4. Overview of monitoring actions

The monitoring methods to assess corridor permeability focused on evidence of red deer, roe deer and wild boar.

The monitoring of animal activity was conducted by the following stationary monitoring devices:

- Camera traps
- Light sensors
- Sound sensors

Field mapping was done by mapping direct species observations, track observations and other activity signs. Additionally the data of roadkill was collected.



In addition, the quantity and quality of over- and underpasses was monitored as well as the number, location and expansion of landscape elements (linear/punctiform), as well as existing barriers in the field.

In total, 26 monitoring sites were equipped with camera traps, data collection took place from 04.12.2021 - 29.05.2022 in a first phase and was continued until end of 2022. The day and night activated cameras were triggered by wildlife and other movements in the closer surroundings. This resulted in 12.252 specific sightings for this first phase of monitoring.

The entire monitoring set up and results are available in the SaveGREEN document "Deliverable T2.3.2 Monitoring report", available in the library on the project website (www.interreg-danube.eu/savegreen) and in the GIS database(<a href="mailto:metadata.savegreen.at/geonetwork/srv/eng/catalog.search#/metadata/b6b05c8e-b4da-4855-8bee-06a1ccb75509).

QR code to the GIS database:



4.1 Conclusions on status quo and next steps based on the monitoring

A detailed analysis of the Müllendorf green bridge for the target species roe deer, red deer and wild boar shows that the green bridge is only used by roe deer and that red deer and wild boar do not migrate from the forest in the north across the cleared agricultural landscape.

In the area of the green bridge Pöttsching, the target species cross the motorway over the green bridge in large numbers, but the nearby underpass, which even features a watercourse as a structural and guiding element with the stream "Erlbach", is only marginally used for migration. Besides the particularly high human disturbance, this is probably also due to the hard-banked streambed and the lack of accompanying vegetation.



Nevertheless, the green bridges studied are located at suitable sites in the bottleneck area and they clearly have structural and functional connectivity to support animal migration. However, the surrounding landscape, which integrates the bridges into the larger biotope network or corridor in the first place, does not support the structural and functional connectivity or even has a barrier effect, especially for the forest-bound target species wild boar and red deer. In addition, even the most advanced green bridges in the ideal locations need a well-structured environment with landscape elements as guiding features and stepping stones to support animal migration.

Basically, with regard to future developments, the main concern in this area is to maintain the permeability of the landscape and not to endanger the quality of the landscape through future changes in land use and additional barriers, such as fencing for solar-power plants. Based on the aerial photos and geodata, the intensive land use becomes obvious: over long stretches, landscape elements and near-natural habitats are missing as cover. Better accompanying structures should be created here, the vegetation along field margins should be restored and the Erlbach stream and other watercourses in the region should be improved as a migratory axes. By restoring the regulated and straightened water bodies in the region and establishing accompanying structures of vegetation, animal migration and overall connectivity could be improved significantly to support the functionality of the local ecological network as well as the Alpine-Carpathian Corridor.

Measures to safeguard and restore the corridors are: settlement activities and the associated land consumption must be limited in order to guarantee the continuum of the Alpine -Carpathian corridor, especially in the rapidly growing metropolitan areas close by. Furthermore, programmes that make extensive agriculture more attractive would make a significant contribution to ensuring the permeability of the corridor. To integrate the green bridges into the ecological network, targeted restoration of degraded landscapes over the entire bottleneck situation and especially in the feeder areas of green bridges is urgently needed.



Please find more detailed information on the monitoring in Deliverable T2.3.2 Monitoring report and GIS database uploaded to the Carpathian Countries Integrated Biodiversity Information System (CCIBIS; https://ccibis.org).

5. Lessons learnt

Within the project, we focused on awareness raising on the importance of ecological connectivity for local communities, representatives of different sectors concerned and decision makers, and sought for the implementation of measures outlined in this document. We provided scientific maps of ecological corridors to be taken into account for future strategic planning. This was done through activities addressing hunters and landowners.

It was difficult to get in touch with hunters and landowners and to properly bring across our concerns regarding habitat connectivity. When landowners were asked to give their consent to wildlife monitoring on their land, this was sometimes seen as a control measure and as an intrusion into private property and therefore was accordingly often refused or only allowed after a period of persuasion.

Related future endeavours should ensure sufficient preparation time for monitoring and measures derived from it. As a basic action local contacts need to be built up in the region, allies need to be identified and personal levels of discussion must be established in order to reduce the feeling of being patronised and restrictions then being issued.

As we learnt, it is not common knowledge that ecological connectivity goes beyond the construction of over- and under passes and landowners are reluctant to agree to certain measures that would be necessary to keep or improve the functionality of ecological connectivity. From this bottom-up perspective, we noticed that landowners do not want to be restricted in their activities on their property; from top-down we experienced that competences for implementing respective legislation with regard to spatial planning is spread across different hierarchical levels (federal



administration has only few competences, while federal states and municipalities are endowed with most of them) and thus very complicated.

Without specific legislation in place aimed at protecting ecological corridors, priority must be given to voluntary implementation within the existing legal framework. Therefore, it is necessary to meet with relevant stakeholders from all sectors, such as spatial planning, rural development, agriculture, forestry and hunting, and discuss how to safeguard or improve ecological connectivity.