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Joint peer-review reports on peer-review excursions by Joint Pilot Teams to ReCo Pilot Regions

Final version

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Title: Reports from the Peer-Review visits

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Content

INTRODUCTION

The ReCo project aims to address the challenges facing the Central European Green Belt (CE EGB). To improve the protection and conservation of habitats along the CE EGB, ReCo focuses on transnational cooperation, recognising that ecological connectivity extends beyond national borders. An important part of the project is the Joint Pilot Actions, which focus on restoring valuable habitats and supporting endangered species through innovative ecological restoration approaches.

In the second year of the project, each pilot region implementing the Joint Pilot Actions (hereafter "Actions") was visited by a joint peer review team composed of Joint Pilot Team members. The teams carried out an in-depth analysis of the Actions, focusing on challenges identified, perceptions of the Actions among stakeholder alliances, and potential community-based leverage effects achieved. The visits included also discussions with selected local stakeholders. The results of the visits, including recommendations for policy improvements, were included in written peer review reports which are presented in this document. The recommendations of the peer review team and the results of the meetings will lead to increased knowledge on ecological restoration and will be summarised in Joint Practitioners' Guides as a transnational solution of Joint Pilot Actions.

This document was developed as a part of the project "ReCo – Restoring degraded eco-systems along the Green Belt to improve and enhance biodiversity and ecological connectivity" (www.interreg-central.eu/projects/reco), supported by the Interreg CENTRAL EUROPE Programme with co-financing from the European Regional Development Fund.

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PILOT REGION 1 - FICHTELGEBIRGE AND SMRČINY MOUNTAINS

Content

1. Agenda and participants

Agenda (19/08/2024) - day 1

Time	Place	Agenda item
17.00	Huschermühle	Overview of activities and tour of the Freshwater Pearl Mussel Breeding Station Huschermühle

Agenda (20/08/2024) - day 2

Time	Place	Agenda item
8.30 – 11.30	Huschermühle	Presentation of the Action Meeting with Stakeholders (indoors)
11.30 – 17.00	Trojmezí, Rehau	Field visit

Agenda (21/08/2024) - day 3

Time	Place	Agenda item
8.00 – 11.00	Pastviny	Field visit
11.00 – 12.30	Krásná	Meeting with the mayor Final discussion

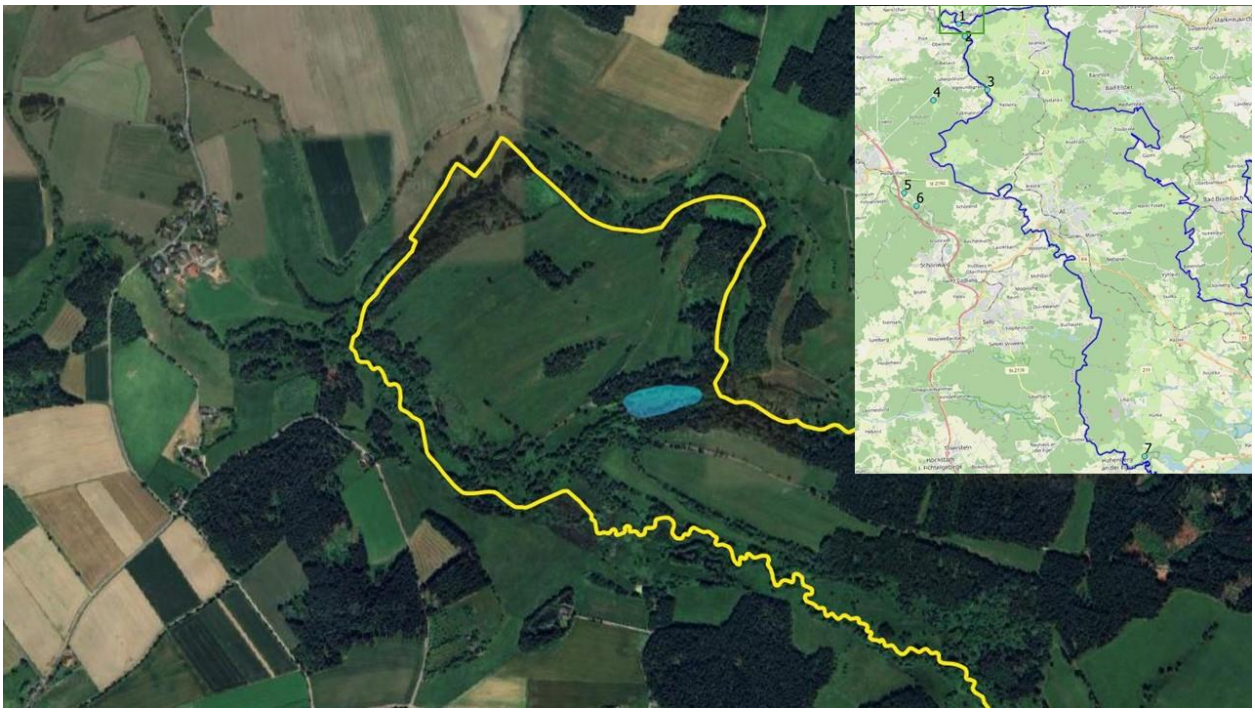
Participants

Name	Organisation, role in the Project	Role in the peer review
David Hubl	Ministry of the Environment of the Czech Republic (PP)	Peer review team – Leader
Bojana Lipej	DOPPS - BirdLife Slovenia (PP)	Peer review team
Helena Cvenkel	BSC, Kranj (PP)	Peer review team
Zdeněk Mačát	Podyji National Park Administration	Peer review team
Hana Skokanová	Landscape Research Institute	Peer review team
Marek Havlíček	Landscape Research Institute	Peer review team
Ondrej Volf	Ametyst	Action implementation team
Wolfgang Degelmann	BUND (Bund Naturschutz in Bayern) (LP)	Action implementation team
Jörg Schmiedel	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
Jörg Hacker	BUND (Bund Naturschutz in Bayern) (LP)	Action implementation team

2. Basic information about the visited Action

Name of the Action	JPA 1 Brodivý potok
Implementation period	01.09.2024 – 30.11.2024
Responsible Project partner	Ametyst
Total budget	1.000 €
Location	See map below.

Map



Target species/habitats

Wet meadows, oligotrophic water streams;

Freshwater pearl mussel *(Margaritifera margaritifera)*

Marsh fritillary *(Euphydryas aurinia)*

Background

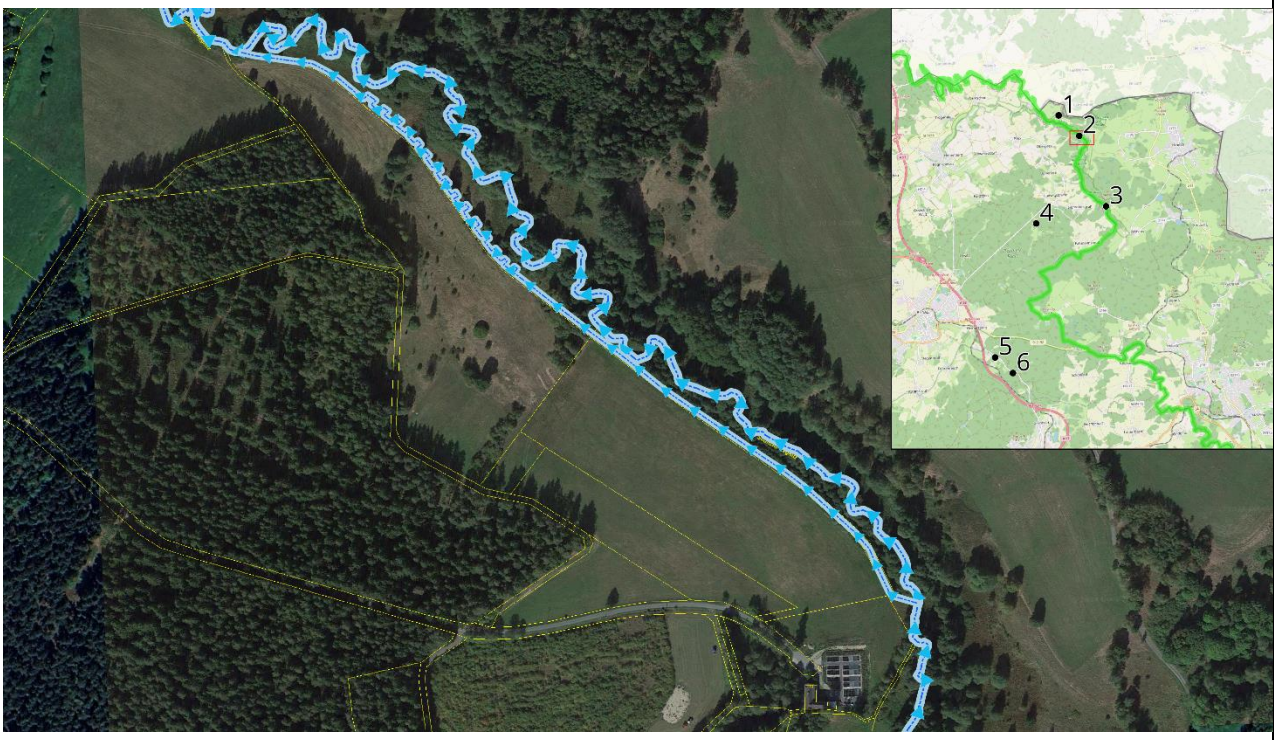
The Brodivý potok Brook is one of the tributaries of the Bystřina Brook, which is a habitat of the Freshwater pearl mussel. Furthermore, these streams contribute to the Rokytnice River, the most important pearl mussel habitat. Freshwater pearl mussel feeds on material brought in by running water. It is therefore very important to plan and implement measures to protect pearl mussel throughout the catchment, especially on small tributaries such as the Brodivý potok Brook. At the same time, conditions for the development of plants that serve as food plants for the butterfly Marsh fritillary will improve.

The joint pilot action aims to clean up the network of small tributaries and improve the vegetation on their banks. The old vegetation along the tributaries will be mowed and their beds will be manually cleared.

This will improve the food supply in the main stream. Based on years of experience, the lifetime of this intervention can be estimated at about 10 years.
Objectives
Restoration of the food supply of the pearl mussel population, which is provided by one of the important tributaries of the main Rokytnice river. Restoration of rare vegetation in the creek bed to allow the development of a rare butterfly Marsh fritillary food plant – *Succisa pratensis*, also known as devil's-bit or devil's-bit scabious.
Expected results
The measure will restore the food supply coming into the main pearl mussel stream. The effectiveness of this measure can be estimated for at least 5 but more likely 10 years. There will be an improvement in the vegetation in the meadow with the presence of food plants for Marsh fritillary butterfly.
Measures implemented
The measure was fully implemented in November 2024.
Stage of implementation at the time of the peer review
During the peer review visit the measure has not yet been implemented. The participants were only presented with the area where the measures will be carried out and the plans for the measures.

Name of the Action	JPA 2 Humboldtgraben
Implementation period	01.03.2024 – 31.08.2024
Responsible Project partner	LP (BUND)
Total budget	The water management authorities are the executing authority; we initiate, advise, and coordinate. Therefore, no budget is allocated.
Location	See map below.

Map



Target species/habitats

Freshwater pearl mussel *(Margaritifera margaritifera)*

Background

The Humboldtgraben, a tributary of the southern Regnitz, is an artificial, straightened watercourse over long stretches. The straightening has restricted the water's natural dynamics, negatively impacting water quality and biodiversity. However, the somewhat warmer water than in the Regnitz offers good breeding conditions for the young freshwater pearl mussels, so a complete reversal of the historical ditch was not considered for reasons of nature conservation.

Objectives

The main goal is to significantly improve the watercourse's structure to enhance the Humboldtgraben's ecological functionality and biodiversity and at the same time further improve the good growth conditions for the freshwater pearl mussel. This includes allowing the water's natural dynamics to improve ecological conditions and water retention capacity.

Expected results
To significantly improve the watercourse's structure to enhance the Humboldtgraben's ecological functionality and biodiversity and at the same time further improve the good growth conditions for the freshwater pearl mussel.
Measures implemented
• Dredge the Humboldtgraben ditch over a length of approximately 178 meters, create bulges, and fill the base with various types of gravel. • Establish 15 gravel bays with diversion structures made of gravel, stones, rootstocks, and trunks for the breeding of the mussel. • Initiate a one-sided natural meandering without affecting the adjacent property. • Maintain the Humboldtgraben ditch over a length of about 350 meters so that plants remain as food for the mussels placed in the gravel bays.
Stage of implementation at the time of the peer review
In progress

Name of the Action	JPA 3 Lužní potok/ Zinnbach
Implementation period	01.10.2024 – 31.12.2024
Responsible Project partner	Ametyst
Total budget	3.000 €
Location	See map below.

Map

Target species/habitats

Freshwater pearl mussel *(Margaritifera margaritifera)*

Background

A major problem for all pearl mussel populations in Central Europe is limited or no reproduction over the last few decades. The pearl mussels are therefore too old and lack a young generation.

A side channel was previously (2001) constructed on Lužní potok Brook to create a nursery habitat for juvenile pearl mussel development. A wooden divider (sluice) was built on the main stream. Water is fed from the main stream into the side channel, which is richly meandering, has a suitable structure and specialised management is carried out on its banks.

This measure has proven to be effective. Several thousand juvenile pearl mussels have already entered the Lužní potok Brook and are finding suitable conditions for their development.

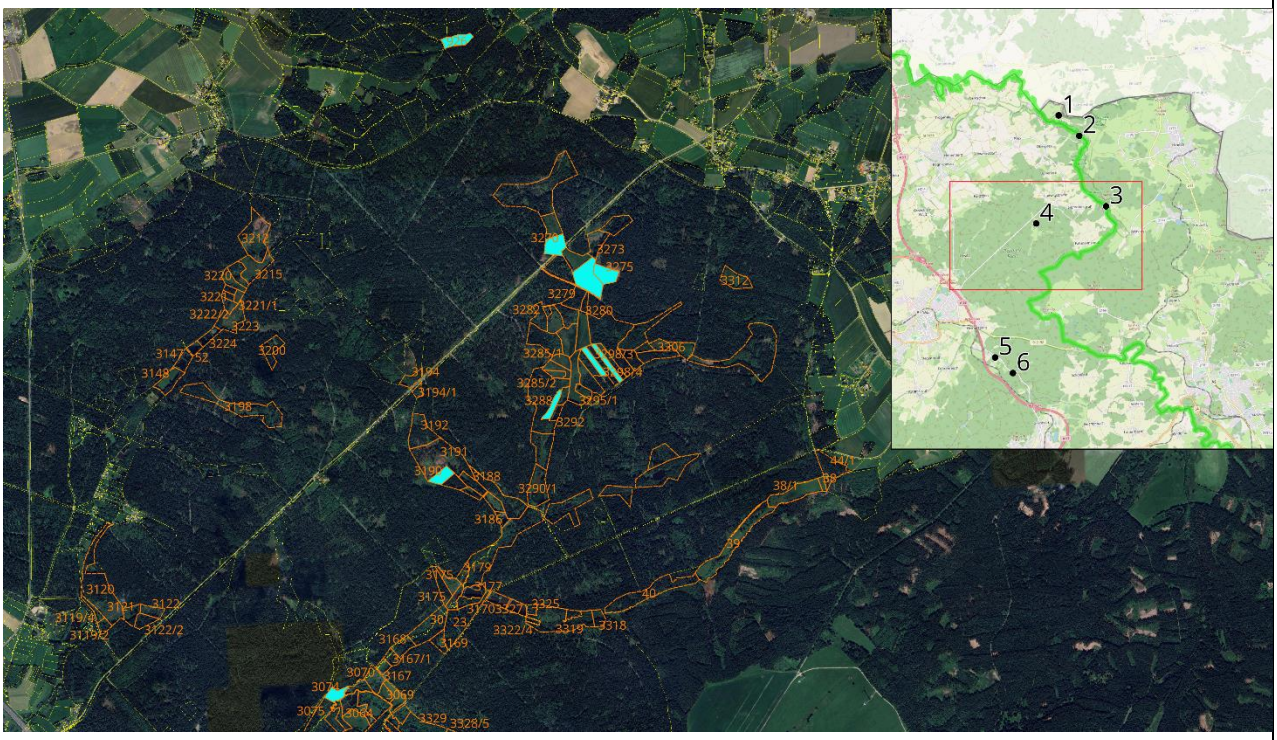
Currently, the wooden dividing object is at the end of its functional life and it needs to be replaced.

The JPA includes the ful restoration of this oak-wood object.

Objectives
To ensure a constant and regulated flow of water into the side channel - breeding habitat for juvenile pearl mussels.
Expected results
For the next 20 years or so, the operation of the pearl mussel nursery on the Lužní potok / Zinnbach will be secured thanks to the measure.
Measures implemented
• The measure is going to be fully implemented in December 2024.
Stage of implementation at the time of the peer review
During the peer review visit, the measure has not yet been implemented. The participants were only presented with the area where the measures will be carried out and the plans for the measures.

Name of the Action	JPA 4 Erlenbächlein
Implementation period	01.09.2023 – 28.02.2025
Responsible Project partner	LP (BUND)
Total budget	20.000 € & additional use of own funds and subsidies, for the acquisition of areas valuable for connectivity and restoration and for the implementation of measures on these areas.
Location	See map below.

Map



Target species/habitats

Flat moors, spring moors, meadows, and sedge or rush-rich wet meadows

Background

The Erlenbächlein area in the Rehauer Forest represents a unique mosaic of different biotopes, including flat moors, spring moors, meadows, and sedge or rush-rich wet meadows. However, these intact biotopes are fragmented by drained, degraded, and afforested areas, significantly compromising the ecological integrity and connectivity of the region. Our project aims to transform this fragmented landscape back into a connected and resilient ecosystem through targeted actions.

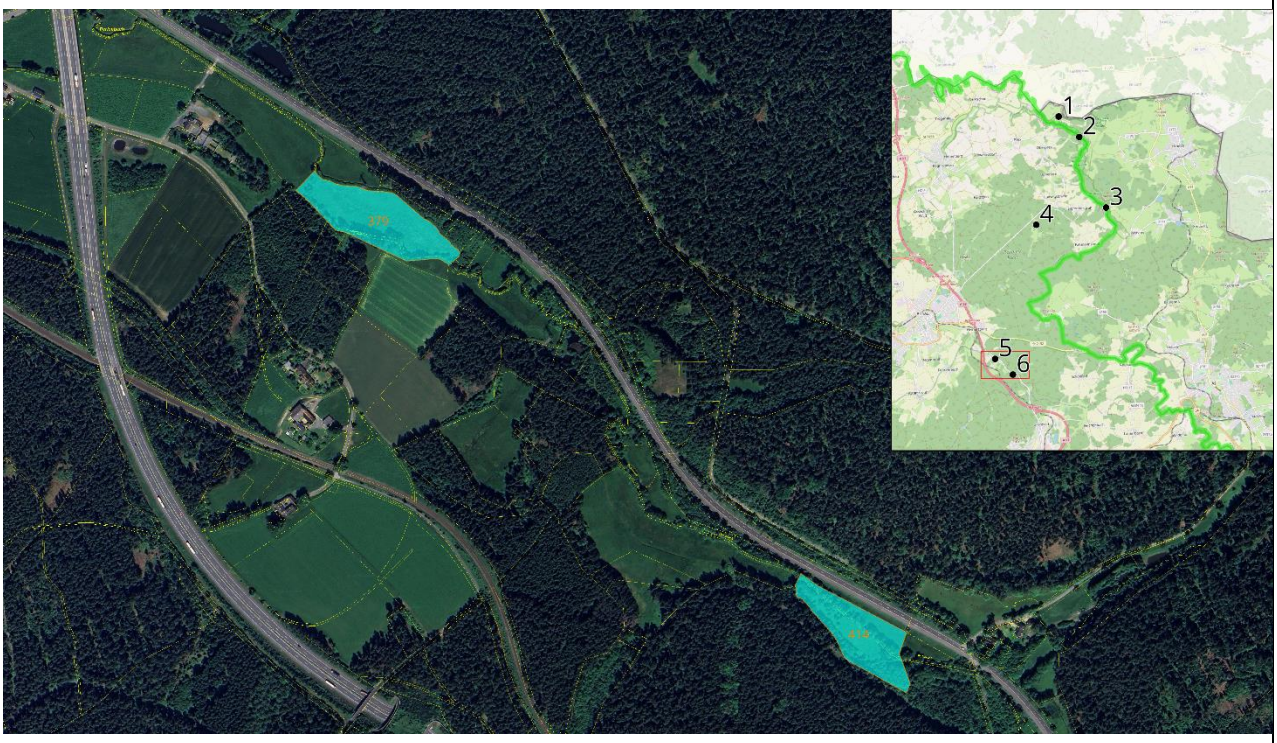
Objectives

The main goal of the project is ecological restoration and the creation of interconnectivity between the different habitats to increase biodiversity and restore ecological balance. A particular focus is on improved water retention and rewetting to restore the natural state of the wetlands. At the same time, these measures improve the year-round water flow and the living conditions of the freshwater pearl mussel in the lower Erlenbächlein and in the Höllbach.

Expected results
Ecological restoration and the creation of interconnectivity between the different habitats to increase biodiversity and restore ecological balance. Improved water retention and rewetting to restore the natural state of the wetlands.
Measures implemented
• Creation of Corridors and Transition Zones: Establishing ecological corridors and transition zones between different habitat types to promote the mobility of flora and fauna and strengthen ecological connectivity. • Dismantling of Drainages: Existing drainage systems that have contributed to the drying of wetlands will be dismantled to restore the natural water balance of the biotopes. • Removal of Non-Native Afforestations: Non-native afforestations will be removed to restore the original open landscapes and promote natural vegetation. • Rewetting: Especially in degraded moor and wet meadow areas, rewetting will be intensified to regenerate the typical flora and fauna of these habitats.
Stage of implementation at the time of the peer review
In progress

Name of the Action	JPA 5 & 6 Perlenbach
Implementation period	01.03.2024 – 28.02.2025
Responsible Project partner	LP (BUND)
Total budget	50.000 €
Location	See map below.

Map



Target species/habitats

Freshwater pearl mussel *(Margaritifera margaritifera)*

Background

The planned measures focus on two sections of the Perlenbach near Rehau, in the district of Hof. The Perlenbach is one of the headwater streams of the Swesnitz, formed by three tributaries: Lohbach and Lauterbach, both originating at the Czech border, and Stockbach, which rises near Schönwald. The Perlenbach's streambed is clogged with fine sediment, preventing young mussels from surviving. This river landscape, protected under the Habitats Directive, requires highly sensitive work methods.

Objectives

Pilot river restoration on two sections of the Perlenbach. Clean fine sediment from the gravel bed to enable young freshwater pearl mussels to survive in the streambed. Scientific monitoring of the measure.

Expected results

The restoration of a natural “clean” streambed, where the survival of young freshwater pearl mussels is once again possible. Scientific data on whether the input of fine sediments has already been reduced enough to ensure that the streambed remains in this good ecological condition, possibly also

through the use of sediment traps. A data basis on which the restoration of longer stretches of watercourses can be undertaken, or more extensive measures to prevent the input of fine sediments need to be implemented.
Measures implemented
Mechanical desilting will be carried out on two sections of the stream, each 100 meters long and 2 meters wide. Sediment will be removed to a depth of approximately 0.5 meters. The excavated gravel will be cleaned of silt using attachments such as shovels, grabs, and sieves, then processed and returned to the streambed. In one section, a sediment trap will be built, measuring 5 meters long, 2 meters wide, and 1 meter deep. The trap will retain suspended solids and reduce sedimentation in the stream. A ramp will be constructed and stabilized to facilitate the trap's emptying. To stabilize the streambed and enhance ecological conditions, approximately 40 m^3 of local fine gravel will be added. This will raise and stabilize the streambed, improving habitat conditions for aquatic fauna.
Stage of implementation at the time of the peer review
Started

3. Questionnaire for the Action implementation team

3.1. Initial and preparation phase

Note: The comments are sometimes provided separately for the German and Czech sites. In such case, comments on German activities are listed first.

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	DE: Yes	Extensive external scientific monitoring has been commissioned for JPA 5 & 6 Perlenbach. As part of this monitoring, a baseline survey was also conducted. For JPA 4 Erlenbächlein and JPA 2 Humboldtgraben, the baseline survey was conducted by capturing the initial state of selected sites through initial observations and photo documentation.
	CZ: No	Regular monitoring of the Freshwater Pearl Mussel population and its habitat is carried out in the area. Sufficient data is therefore available for planning measures.
Did you prepare a feasibility study?	No/No	
Did you identify any conflicts between different protection subjects?	No/No	
Do you have a technical documentation or management plan?	DE: Yes	Drafting an ecological restoration and connectivity plan based on the results of the stakeholder workshop on 23 January and several day excursions with different stakeholders for the districts of Hof and Wunsiedel along the Green Belt and adjacent areas on the Czech side in GIS, and creation of a detailed GIS area plan for the "Erlenbächlein" area, including identification of landowners and the restoration and connectivity goals, done by Jörg Hacker. Implementation planning of the JPAs done by Wolfgang Degelmann.
	CZ: Yes	We had a plan for measures to improve the food habitat, for the restoration of the technical object, as well as for the management of the meadows.

Question	Y/N/ N/A	Comment
Did you cooperate with external experts during the measures planning?	DE: Yes	For all JPAs, stakeholders representing key specialized authorities were involved in the planning. In the planning of JPA 5 & 6 Perlenbach, Professor Dr. Jürgen Geist, Chair of Aquatic Systems Biology at the Technical University of Munich, was also involved.
	CZ: Yes	When planning measures for the pearl mussel, we always cooperate with experts from the Nature Conservation Agency of the Czech Republic (AOPK). This institution is responsible for the Action plan of the species and has long been involved in its protection.
Did you face problems in obtaining the necessary permits and approvals?	No/No	
Did you face any legal barriers or conflicts with policies and official strategies?	DE: Yes	In JPA 4 Erlenbächlein, a conflict of interest became apparent. The Municipality of Rehau extracts drinking water in significant quantities from shallow wells at many points in the Rehau Forest, which, in addition to drainage through ditches, further contributes to the degradation of the moorland. The extracted water is missing from the peat bogs and wet meadows of the Rehau Forest, which serve as natural water reservoirs both during heavy rainfall events and dry periods. As a result, streams in the region are at risk of regularly drying out during dry phases. To prevent this, the Municipality of Rehau is obliged to release water from the drinking water supply into the streams during dry periods. This is water that could have been retained in the landscape from the beginning if the natural water retention and functioning of the moorland had been intact.
	CZ: No	
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	Ametyst and BUND [PPs]; Biodiversity advisor for Hof District [close coordination of all JPAs]; Lower and Upper Nature Conservation Authority [coordination of practical implementation, nature conservation permits, granting of funding for land acquisition]; Bavarian State Forests, Private Forest Rangers [coordination on forestry interventions and as relevant landowners]; Landscape Management Association of Hof & Wunsiedel [practical implementation of measures

Question	Y/N/ N/A	Comment
		and especially sustainable maintenance of the measures beyond the project period]; Fisheries Authority [coordination regarding JPA Perlenbach]; AOPK [landowner & nature conservation authority]; Bavarian Association for the Protection of Birds (LBV), and Fichtelgebirge Association (FGV) [other nature conservation organizations].
Did you inform and/or involve them during the preparation phase?	Yes	Relevant stakeholders were identified and involved for the workshop on 23 January, and their technical expertise and local knowledge form the basis for many of the measures in ReCo. Additional stakeholders were identified during the preparation of the JPAs and brought in as external experts (local knowledge and technical expertise) to advise on the project. In particular, the ecological restoration and connectivity plan would not have come together with such a high level of local knowledge without these stakeholders.
Did you face any conflicts with stakeholders during the preparation phase?	No	
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	Yes/No	

3.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	Yes	The restoration was carried out as planned.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	DE: No	
	CZ: Yes	Our suppliers unexpectedly fell ill, so the implementation of the measures was postponed.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g.,	DE: Yes	For all JPAs, stakeholders representing key specialized authorities were involved in the planning. In the implementation of JPA 5 & 6

Question	Y/N/ N/A	Comment
continuous monitoring, scientific studies, etc.)?		Perlenbach, Technical University of Munich, was also involved.
	CZ: Yes	During implementation, we continuously consulted with experts from AOPK.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	No	
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	Yes, relevant stakeholders are continuously involved in the respective JPAs.
Have you faced any conflicts with stakeholders?	No	
Communication with general public		
Do you communicate with general public?	DE: Yes	Articles about ReCo for "Nachrichten aus dem Naturschutz" (BN Hof members' magazine) and "Siebenstern" (regional magazine of the Fichtelgebirge Association).
	CZ: Yes	Yes, we informed about the measure on our website.
Do you carry out public events?	Yes	A joint cross-border ReCo excursion along the Green Belt.
Do you work with volunteers?	DE: Yes	Important external experts who contributed especially to the on-site inspections of the best-suitable restoration areas during the day excursions are volunteers, such as Ulrike Vollmond, Swanti Bräseck-Bartsch, Georg Novak, Peter Strunz, Peter Lang, Werner Gebhard, and Stefanie Jessolat. Stefanie Jessolat also serves as volunteer garden dormouse coordinator for BUND in cooperation with the project „Spurensuche Gartenschläfer“.
	CZ: No	

3.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	DE: Yes	JPA 5 & 6 Perlenbach are being scientifically closely monitored before, during, and after implementation.
	CZ: Yes	The effectiveness of the measures will be monitored by the AOPK during regular monitoring of pearl mussel.
Do you / will you cooperate with external experts in the assessment?	Yes/No	
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	DE: Yes	A final stakeholder workshop is planned for next year, following the implementation phase, during which stakeholders will evaluate both the measures and the ecological restoration and connectivity plan.
	CZ: Yes	The AOPK continuously monitors the entire area.
Will you continue to communicate with general public?	Yes	
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	Some of the stakeholders will even take on the long-term management of the areas.
Is any further financing necessary and have you assured it?	DE: No	
	CZ: Yes	Yes, additional funding will certainly be needed to continue the Freshwater pearl mussel Action plan and meadow management for Marsh fritillary.
Is it possible to replicate the measures in different locations?	DE: Yes	The rewetting of fens and wet meadows in JPA 4 Erlenbächlein is based on good professional practice, as has been applied in many other locations. The measures are fully replicable. JPA 2 Humboldtgraben is more specialized, incorporating experience from the freshwater pearl mussel breeding channel on the Czech side as well as the expertise of the staff at the Huschermühle breeding station. The measures are certainly replicable but for a specific application. With JPA 5 & 6 Perlenbach, we are entering new

Question	Y/N/ N/A	Comment
		territory. Extensive external scientific monitoring has been commissioned to specifically verify the replicability in other locations.
	CZ: Yes	The measures taken are cyclical and need to be repeated regularly. They are also transferable to other sites.
Do you have any replicability tools which can be shared?	Yes	Approved action plan.
Do you disseminate the project results?	Yes	The detailed results will be shared in full with the stakeholders, and the summarized findings will also be presented to the general public.

3.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
The involvement of stakeholders was central, both in terms of their expertise and local knowledge. They brought invaluable insights to the project, enabling synergies to be leveraged, and their close involvement ensures that they can apply the knowledge gained in ReCo to their own work. This also ensures sustainability. QGIS proved to be an excellent tool for visualizing the collected information and organizing processes.

4. Field visit

During the field visit part of peer review the team visited various locations of individual action realisation. The team visited the freshwater pearl mussel breeding station at Huschermühle, where the presentation of the breeding programme took place, followed by examples of land use change in the area over the last century and its impacts and finished with a round table stakeholder discussion. Following the discussion the peer review team visited 6 individual actions, including the restoration of brooks (not only) for Freshwater pearl mussel, meadow management which provides a viable habitat, e.g., for the Marsh fritillary and forest wetlands restoration to enhance local biodiversity.

5. Meetings with stakeholders

1	Name	Wibke Richter
	Organisation/institution	HNB Oberfranken (Higher Nature Protection Agency)
	Relation to the Action	Closely involved in all JPAs
2	Name	Stefan Braun
	Organisation/institution	UNB Hof (Lower Nature Protection Agency)
	Relation to the Action	Closely involved in all JPAs & Representative of the district as one of the major landowners
3	Name	Michael Grosch
	Organisation/institution	Baysf Selb (Bavarian State Forestry)
	Relation to the Action	Closely involved in JPA 4 & Major landowner in that area
4	Name	Regina Saller
	Organisation/institution	LPV Hof (Landscape Management Association)
	Relation to the Action	Closely involved in JPA 4 & Ecological management of the project areas after project completion.
5	Name	Isabell Kaske
	Organisation/institution	LPV Hof (Landscape Management Association)
	Relation to the Action	Closely involved in JPA 4 & Ecological management of the project areas after project completion.
6	Name	Hagen Rothemund
	Organisation/institution	WWA Hof (Water Authority)
	Relation to the Action	Executing authority in JPA 2 & Closely involved in all JPAs
Outcomes of the meeting		
The round table meeting with involved stakeholders in Huschermühle breeding station demonstrated thorough involvement of stakeholders on the action realisation at all its stages – from the planning to the upkeep and continuation of the finished individual actions.		

6. Evaluation of the Action

6.1. Assessment of procedures

Availability of documentation
Yes, the necessary documentation was available.
Preparation and implementation of restoration measures
From the technical point of view, the individual actions were prepared and implemented well, despite the somewhat problematic terrain and access to managed areas in some cases, including the necessary sensitivity required when performing the management. Many of the individual actions, especially meadow management, required manual labour and frequent maintenance, which the responsible project partners have performed diligently.
Stakeholder involvement
It was very clear that the actions could not be realized without involvement and help from local stakeholders. The involved parties were cooperating well and in unity.
Communication with general public
Communication with the general public was handled by both the responsible project partners. Since both project partners have a history in managing and improving biodiversity in the area, they are well received by the local general public and overall have their support, including the local authorities.
Sustainability, continuation
The sustainability and continuation of the Action varies depending on individual action in question. Meadow management in particular is, by its nature, continuous process and if ceased will likely result in the loss of results and biodiversity. As such, continuation of such actions needs to be assured along with financing. Concerning the freshwater pearl mussel, without the existence of breeding station and carefully managed outdoor areas, where the juvenile mussel can grow before being introduced to larger water streams, the population would diminish and eventually perish altogether. Therefore, the breeding and reintroduction program has to be maintained for the foreseeable future in order to preserve the achieved results.
Replication and dissemination
Many tested and approved procedures were used. Similar measures have been implemented at other sites with target species. The measures are discussed by the Action Plan Advisory Board, which meets once a year and proposes active measures.

6.2. Environmental impact

Assess the (anticipated) impact of the implemented measures on the target species/habitats
The measures will help to improve foraging habitat for the pearl mussel and meadows in the catchment. The measures implemented are based on many years of experience in the area concerned.
How does the Action contribute to the ecological connectivity along the EGB?
The measures contribute to ecological connectivity by providing 'stepping stones' of suitable habitat as well as connecting suitable conditions in the watercourse.

How does the Action contribute to increasing biodiversity?
Meadow management and forest wetlands restoration does contribute to increasing biodiversity in the area. The measures are directly aimed at improving the habitat for several highly endangered species.
Does the Action take into account the climate change? Does it include adaptation measures?
The Action improves local nature and biodiversity resilience, contributing to overall climate change adaptation. The main problem in the area is the recurrent droughts that threaten organisms in small streams. Measures should help to stabilise the water regime in the catchment.
Has the Action any negative impact?
The Action (also due to it being separated individual actions) does not have any negative impact.

6.3. Socio-economic impact, policy

Assess the (anticipated) impact on the local community
The Action as a whole has potential to impact the positive attitude of local community towards nature conservation. The Action also improves local nature and biodiversity resilience, contributing to overall climate change adaptation.
Assess the (anticipated) economic impact
The Action has minor positive impact on jobs in the area due to need for continuous management. Minor impact to tourism is also likely.
Policy issues
The Action does not conflict existing policies and is realized with them in mind.

7. Summary of strengths and weaknesses and lessons learned

Main strengths, highlights
• Biodiversity improvement • Improvement of nature resistance to negative impacts of climate change and human behaviour • Preserving endangered species • Viable example of good practice
Main weaknesses
• Action requires long term continuation and financing
Lessons learned
• Involvement of stakeholders and local community is mandatory to leverage support for the Action

• Long-term knowledge of the environment, acquired experience and contacts with experts and stakeholders are important for properly planned measures.

8. Key messages

Recommendations for reviewed Action
Since the action has no negative impacts and communication and cooperation with the stakeholders and public is handled very well, the only recommendation is securing the continuation of the action and possible expansion of the practices to wider area.
Recommendations for all project partners: transferable results
While the freshwater pearl mussel programme is not exactly transferable, the results and practice in meadow management and stakeholder involvement/local authorities involvement can serve as an example of good practice for other partners and other stakeholders along the EGB.
Policy messages
It is necessary to ensure sufficient financial and personnel resources for the necessary regular care of the entire area.

9. Photodocumentation

Figure 1: Artificially created meander for juvenile freshwater pearl mussels

Figure 2: Presentation of the freshwater pearl mussel breeding program at Huschermühle

Figure 3: Visiting the meadow management site

Figure 4: Visiting the larger stream and inspecting its restoration for freshwater pearl mussel

Figure 5: Forest wetland restoration - transferring the water (when raised) across the road and therefore re-wetting another part of the forest

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PILOT REGION 3 - ŠKOCJANSKI ZATOK

Content

1. Agenda and participants

Agenda (August 5th 2024) – day 1

Time	Place	Agenda item
18.00 – 18.15	Visitor centre of Škocjanski zatok Nature Reserve (Koper, Slovenia)	Get together and welcome by DOPPS-BirdLife Slovenia (indoor)
18.15 – 19.45	Visitor centre of Škocjanski zatok Nature Reserve (Koper, Slovenia)	Presentation of the Joint Pilot Action in Škocjanski zatok Nature Reserve (indoor)
20.00 – 22.00	Gostišče Turk (Bertoki, Koper, Slovenia)	Common dinner

Agenda (August 6th 2024) – day 2

Time	Place	Agenda item
8.00 – 11.00	Škocjanski zatok Nature Reserve (Koper, Slovenia)	Field visit in Škocjanski zatok Nature Reserve (outdoor)
11.30 – 13.00	Visitor centre of Škocjanski zatok Nature Reserve (Koper, Slovenia)	Meeting with stakeholders (indoor)
11.30 – 14.30	Visitor centre of Škocjanski zatok Nature Reserve (Koper, Slovenia)	Lunch
15.00 – 18.00	Visitor centre of Škocjanski zatok Nature Reserve (Koper, Slovenia)	Discussion about the JPA with Peer review team (indoor)
20.00 – 22.00	Kmetija Krmac (Bertoki, Koper, Slovenia)	Common dinner and conclusion

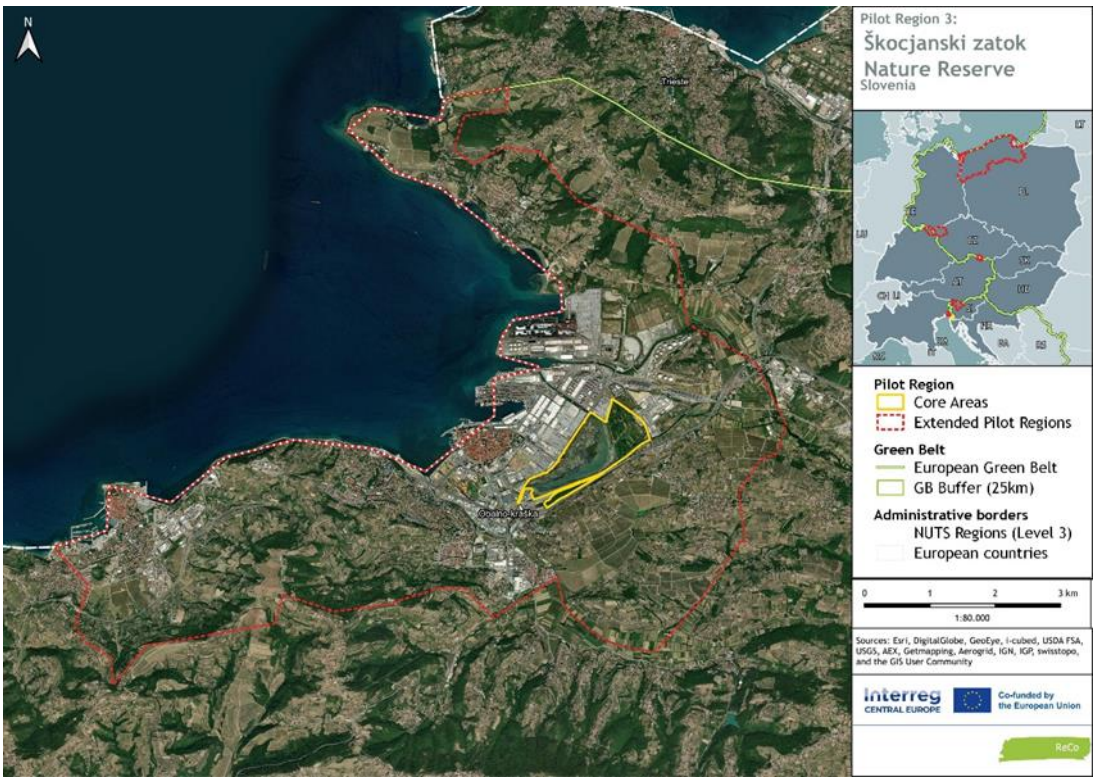
Participants

Name	Organisation, role in the Project	Role in the peer review
Ondřej Volf	Spolek Ametyst (PP4)	Peer review team leader
Jörg Schmiedel	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
Jakub Skorupski	Green Federation "GAIA" (PP5)	Peer review team
Jörg Hacker	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
Eva Volfova	Spolek Ametyst (PP4)	Peer review team
Thomas Wrbka	University of Vienna (PP8)	Peer review team
Agnes Groiß	University of Vienna (PP8)	Peer review team
Londoño Jiménez	University of Vienna (PP8)	Peer review team
Giovanna Caputo	WWF AMP MIRAMARE (PP6)	Representative from the new partner

Alessio Flego	WWF AMP MIRAMARE (PP6)	Representative from the new partner
Bojana Lipej	DOPPS-BirdLife Slovenia (PP3)	Action implementation team
Borut Mozetič	DOPPS-BirdLife Slovenia (PP3)	Action implementation team
Tina Kocjančič	DOPPS-BirdLife Slovenia (PP3)	Action implementation team
Domen Stanič	DOPPS-BirdLife Slovenia (PP3)	Ornithologist from partner PP3
Andreja Rožnik	DOPPS-BirdLife Slovenia (PP3)	Action implementation team
Bia Rakar	DOPPS-BirdLife Slovenia (PP3)	Action implementation team
Ines Klinkon	Slovenian Water Agency	Stakeholder - representative of a state institution
Robert Gregorič	Slovenian Water Agency	Stakeholder - representative of a state institution
Jure Barovič	Port of Koper	Stakeholder - representative of the economy
Milka Sinkovič	University of Primorska, Faculty of Tourism Studies	Stakeholder – representative from academia
Andreja Poklar	Municipality of Koper	Stakeholder – representative from the municipality
Maruška Lenarčič	The Slovenian Third Age University	Stakeholder – representative of individuals/ pensioners

2. Basic information about the visited Action

Name of the Action	Protecting Ecological Values and Importance of the Mediterranean Brackish Wetland for Biodiversity and Nature Protection
Implementation period	16th March 2023 – 24th March 2023
Responsible Project partner	DOPPS-BirdLife Slovenia (PP4)
Total budget	16,856.74 €
Location	Škocjanski zatok Nature Reserve (45°32'29" N, 13°44'35" E)
Map	



Pilot region 4 – Škocjanski zatok Nature Reserve (source: ReCo, 2023)

Target species/habitats
Target habitats in the brackish lagoon of Škocjanski zatok Nature Reserve: - Mudflats and sandflats not covered by sea water at low tide - Natura 2000 code 1140 - Salicornia and other annual plants colonizing mud and sand – Natura 2000 code 1310 - Mediterranean salt meadows (*Juncetalia maritimi*) - Natura 2000 code 1410 - Mediterranean and thermo-Atlantic halophilus scrub *(Sarcocornetea fruticosi*) – Natura 2000 code 1420 Natura 2000 bird species: -Kentish plover (*Charadrius alexandrinus*) - Little tern (*Sternula albifrons*)

- Common tern (*Sterna hirundo*)
Background
The Joint Pilot Action (later in text: JPA) aimed to tackle the challenges posed by climate change in wetlands and reduce its impact on the protected Natura 2000 (later in text: N2000) habitats and species within the brackish lagoon of the Škocjanski zatok Nature Reserve (later in text: Škocjanski zatok NR). This is crucial as studies for Škocjanski zatok indicate a significant increase in vulnerability, with N2000 habitats at risk of losing surface area and potentially disappearing by 2060 without intervention. As a result, the fauna reliant on these habitats will be negatively affected. Changes in the species composition and abundance of shorebirds in these areas serve as key indicators of the severity of the situation. To mitigate these impacts, it is vital to create adequate space for targeted halophytic habitat types, either through the artificial creation of new mudflats or by raising existing ones.
Objectives
The general objective of the JPA in the Škocjanski zatok NR is to address climate change challenges impacting wetland ecosystems, with a special focus on coastal wetlands. This initiative seeks to develop and apply strategies to reduce the negative effects of climate change on N2000 protected habitats and bird species inhabiting in the brackish lagoon of the Škocjanski zatok NR.
Expected results
- Additional areas for target habitat types (420 m^2 of newly created mudflats) - Increase in the breeding populations of N2000 bird species: up to 5 pairs of Kentish plover, 10 to 20 pairs of Little tern, and up to 50 pairs of Common tern - Better water circulation in the brackish lagoon and lower risk of eutrophication.
Measures implemented
- The JPA included the creation of two new mudflats in the central area of the brackish lagoon, covering a total of 420 m^2, which required 710 m^3 of lagoon sediment. This initiative is designed to encourage the growth of halophytes, thereby enhancing N2000 habitats and supporting the nesting of target Natura 2000 bird species within the lagoon of Škocjanski zatok NR. - Material for constructing and shaping the mudflats was obtained by deepening the interconnected secondary channels within the lagoon. New mudflats were created at varying micro-elevations to encourage the natural development of specific habitat types, with consideration for the succession process. - The lagoon sediment was excavated using a floating excavator equipped with a grabber and a high-pressure pump to transport sediment from the lagoon floor. This process was supported by an additional floating excavator with an extended arm to hold the sediment transport pipe in place, ensuring accurate placement for the creation of new mudflats. - Technology used: the material composition for mudflats consisted of 80% sediment and 20% water. The low water content in the sediment minimizes surface erosion issues, while the denser consistency of the sediment makes it more suitable for forming new muddy areas. - Dredging sediment from the lagoon's secondary channels also improved water circulation and reduced the isolation of peripheral habitats. Over time, this will help lower the risk of lagoon eutrophication and enhance ecological conditions for nesting birds and the spread of halophytes across the entire lagoon area.

Stage of implementation at the time of the peer review
The JPA was completed at the time of the peer review.

3. Questionnaire for the Action implementation team

3.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	YES	The basis for the JPA in the area of Škocjanski zatok NR is outlined in two documents: 1. Ivajnšič, D., Kaligarič, M. (2014): How to Preserve Coastal Wetlands, Threatened by Climate Change- Driven Rises in Sea Level. Environmental Management 54(4): 671-684. Focus: Predictions for the Škocjanski zatok NR suggest that halophytes could be significantly reduced by the mid-21st century due to climate change. The study proposes several adaptation and mitigation measures to preserve the target habitat types and the ecosystem services they provide. 2. Within the framework of ECOSMART project (Interreg Italia-Slovenija) an Adaptation Plan for the Škocjanski zatok NR was developed in 2021. This plan outlines the challenges posed by climate change and proposes solutions to address the resulting changes.
Did you prepare a feasibility study?	NO	
Did you identify any conflicts between different protection subjects?	NO	
Do you have a technical documentation or management plan?	YES	All documentation and permits were prepared by the appropriate external organizations-DRAVA vodnogospodarsko podjetje Ptuj d.o.o. (further details are provided in section 6.1).
Did you cooperate with external experts during the measures planning?	YES	Mag. Jana Vidic, responsible person (expert) from the Ministry of Natural Resources and Spatial Planning and Slovenian Climate Change Fund within the Ministry of the Environment, Climate and Energy Dr. Daniel Ivajnšič, researcher (expert) from the University of Maribor, Faculty of Natural Science and Mathematics Rok Velišček, Slovenian Water Agency Working with external experts during the planning of measures was essential for the success of the JPA. Regular

Question	Y/N/ N/A	Comment
		consultations ensured that the measures were thoughtfully developed and customized to address the specific needs of the protected area.
Did you face problems in obtaining the necessary permits and approvals?	NO	
Did you face any legal barriers or conflicts with policies and official strategies?	NO	
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	YES	We have already established a long-term cooperation with the most important stakeholders of the Škocjanski zatok NR within the IMPRECO project (Interreg Adrion programme) by signing a mutual cooperation agreement in 2021. The three most important stakeholders are: • Municipality of Koper; • Port of Koper; • Slovenian Water Agency. The Municipality of Koper serves as the local authority responsible for issuing specific permits. The Port of Koper borders the Škocjanski zatok NR and activities in the lagoon depend on the inflow of seawater through the sea channel that runs through the Port of Koper area. The Slovenian Water Agency played a key role in the preparatory activities of JPA, particularly in reviewing the documentation. Their responsibility includes assessing and approving the adequacy of planned hydrological-hydraulic works or any interventions affecting water and coastal land.
Did you inform and/or involve them during the preparation phase?	YES	The involvement of the three primary stakeholders is described above, but we also engaged other groups, primarily individuals such as local farmers, photographers, regular daily visitors, retirees, ornithologists, and tourists. Their involvement was more important from an awareness-raising perspective because through them we were able to transfer information to the wider audience.
Did you face any conflicts with stakeholders during the preparation phase?	NO	
Communication and involvement general public		

Question	Y/N/ N/A	Comment
Did you start communication with general public during the preparation phase?	YES	Communication was primarily conducted through the website, social media platforms, and face-to-face interactions, either at the visitor centre or during guided group activities. And yes, it was useful because the public was interested in what was happening in the brackish lagoon. This indicates that the public is sensitive to events in the reserve, which proves that the level of nature conservation awareness is better than it was in the past.

3.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	YES	We carried out the restoration as planned, and during implementation, no issues requiring changes or adjustments were observed. The completed activities will be monitored over time, allowing us to evaluate the success of the JPA.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	NO	
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	YES	We have cooperated with external experts during the implementation of measures. Those experts were: - an external professional supervisor, responsible for ensuring the proper implementation of the works, - coordination with the ornithologists within our organization and botanist, temporarily employed by DOPPS, played a crucial role as experts in preserving biodiversity, - cooperation with the Institute of the Republic of Slovenia for Nature Conservation, which is the central national professional organization in the field of nature protection and they monitored our JPA to ensure that everything was as it should be in terms of nature protection.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	YES	Despite choosing the most optimal time for the project's JPA implementation, the impact on the bird population was evident, with a noticeable decline in the abundance of wintering bird species in the lagoon. The only solution was to complete the works as quickly and efficiently as possible and that is what we suggested to the selected company who carried out the work.

Question	Y/N/ N/A	Comment
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	YES	Most of the communication was conducted with three main stakeholders: the Municipality of Koper, the Port of Koper, and the Slovenian Water Agency (DRSV). The Municipality was regularly informed about the progress of the JPA, as it represents the local community. The Port of Koper needed to be regularly informed because maintaining a sufficient water inflow in the lagoon area was crucial for all operations, and also due to the use of drones to monitor the progress of the work (the border with the port represents a customs zone). The Slovenian Water Agency (DRSV) was responsible for all hydrological and hydraulic works and therefore regularly participated in internal coordination meetings. With the progress of JPA, we also informed the Škocjanski zatok NR, which is responsible for monitoring the management of the reserve. The board is composed of one representative from the responsible ministry, two representatives from the local municipality, two representatives from the Slovenian Water Agency, and one representative from the Slovenian Institute for Nature Conservation.
Have you faced any conflicts with stakeholders?	NO	
Communication with general public		
Do you communicate with general public?	YES	We communicate with the general public through our website (DOPPS and Škocjanski zatok websites), social media platforms (FB and Instagram), and in the visitor centre of Škocjanski zatok NR.
Do you carry out public events?	YES	As we regularly organize various events, we used some of them to inform the general public about the JPA. These events included guided tours, workshops with school youth on environmental days, lectures for the general public, and volunteer activities.
Do you work with volunteers?	YES	This is one of our commitments as NGO, and volunteers make a significant contribution to nature conservation.

3.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	YES	As part of the ReCo project, a survey focusing on habitat mapping is planned on the newly created mudflats, along with monitoring of nesting bird species and their ringing. Since the JPA was completed in 2023, we already conducted two field monitoring days for birds on the newly established mudflats in May and June 2024. Habitat mapping is planned for September and October 2024. The same will be done in 2025.
Do you / will you cooperate with external experts in the assessment?	YES	Only the habitat mapping will be conducted by external experts, while the monitoring and bird ringing are our areas of expertise.
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	YES	All Škocjanski zatok stakeholders will be involved in the after-implementation phase (regular updates through stakeholders meetings and field visits).
Will you continue to communicate with general public?	YES	We will continue with our standard communication with the general public through our website (DOPPS and Škocjanski zatok websites), social media platforms (FB and Instagram), and in the visitor centre of Škocjanski zatok NR.
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	YES	To ensure the sustainability of the action's results we are planning following measures: – Monitoring and maintenance: we will establish a long-term monitoring to track the effectiveness of the implemented measures and identify any necessary adjustments; – Stakeholders engagement: we will continue to actively work with relevant stakeholders in the future as well; – Awareness and education: informing and educating visitors about the implemented actions (as well as the EGB and cooperation with other partners) during guided tours, primarily focused on school groups; – Additional funding: as it is described below
Is any further financing necessary and have you assured it?	YES	We plan to secure additional funding through concession funds or by applying for new projects to ensure the continued support and sustainability of the action's results.
Is it possible to replicate the measures in different locations?	YES	It is possible to replicate the measures implemented in the Škocjanski zatok NR at other locations, primarily in coastal wetlands.

Question	Y/N/ N/A	Comment
Do you have any replicability tools which can be shared?	YES	Detailed documentation of the methods and techniques used in the brackish part of the Škocjanski zatok NR, including the plan for monitoring the success of the JPA (bird monitoring, ringing, and habitat type mapping).
Do you disseminate the project results?	YES	Some of the project results were already shared with various stakeholders, including the responsible Ministry, the general public, Škocjanski zatok stakeholders, school groups on guided tours, and visitors to the reserve, others will be shared later. The dissemination of project results took place through multiple channels: some were shared on the website, others through face-to-face meetings with stakeholders, via email, and in printed form, such as the publication Svet ptic.

3.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
The implementation of JPA was very challenging task for us but brought valuable experience. **Before implementation of JPA:** – the preparatory tasks, such as the preparation and acquisition of all necessary documentation, were quite demanding and required a significant amount of time. Although faster documentation gathering would have been preferable, the current legislative procedures unfortunately do not allow it. What we learned: we got a deeper understanding of certain technical and administrative procedures through this process. Our recommendation: it is always important to check how much time is required to obtain the necessary documents, as delays in their acquisition can significantly postpone the start of works. – the involvement of stakeholders in the preparatory activities was crucial, particularly the three mentioned in section 3.1.: the Slovenian Water Agency, which reviewed the prepared documentation and issued approval to the planned hydrological-hydraulic works; the Municipality of Koper, which assisted in obtaining other necessary permits; and the Port of Koper, as it directly borders the reserve and the implementation of the JPA was depending on adequate water supply through the sea canal running through the Port of Koper. What we learned: involvement of certain stakeholders in preparatory activities contributed to a more professional and precise preparation of the documentation. Our recommendation: involvement of stakeholders is beneficial, with consideration, which ones involving firstly and more intensively, and which ones later. – before starting the JPA, we also informed the Škocjanski zatok NR Board (board consists of 5 members: one from the relevant ministry, two from the local community, one from Slovenian Water Agency and one from the Institute of the Republic of Slovenia for Nature Conservation. The Board, established by a ministerial decision, is an important body as it monitors the management of the reserve, reviews the proposed annual work program and reports, and provides opinions and suggestions related to the management of the reserve. Their approval for implementing the JPA was important as the reserve is owned by the Republic of Slovenia. Our recommendation: the

owners of the area where activities are planned (whether public or private) must be promptly notified and provide their consent.

Implementation of JPA:

- during the JPA implementation, daily short morning meetings between us (DOPPS), the contractors, and the chief supervisor were very helpful. In these meetings, we shared important information about the day's work plan and scheduled activities. What we learned: daily meetings with the company in charge of the works helped the work progress more smoothly. Our recommendation: regular coordination with external assistance is important when doing earthworks in protected areas to avoid larger problems later.
- informing visitors at the info centre in Škocjanski zatok NR (face-to-face) proved to be very helpful, as this way of communication is allowing more detailed and accurate information to interested visitors. In addition, we included information about the importance of JPA in the Škocjanski zatok educational program. Each group on a guided tour receives information about the JPA, why it was done and how it was carried out (the information is adapted to the age of visitors). What we recommend: using website and social media is very useful communication tool, but not forget personal communication.
- Photo documentation of works – it is very important to document the condition of the area before the work begins, during the execution, and after completion (this is crucial for assessing the success of the activity later on). What we learned: using drones for photo documenting the progress of JPA was very useful for us (but of course, we had to respect all legal requirements when using a drone).

After the implementation of JPA:

- Monitoring the success of the JPA: we prepared the monitoring plan, and in our case, we only need to seek external assistance for habitat mapping, as we are qualified institution for bird monitoring and ringing. Our recommendation: it is essential to establish a monitoring method as soon as possible and find suitable experts. Some external contractors may be occupied with other commitments, and certain types of monitoring may not always be possible at any time (e.g., nesting season, seeding time, vegetation period, or bad weather conditions).
- It is very important to ensure long-term monitoring and we plan to do this by including the monitoring of the JPA's success in the regular reserve management monitoring. The period 2024/2025 is a great opportunity, as we are currently working on a new 10-year management plan for Škocjanski zatok NR, which will define future tasks, activities and funding. We will include this monitoring in this plan.
- Peer review has been a very valuable experience (until now, the Škocjanski zatok team had never undergone such a process), as it gave us feedback and advice from project partners. External opinions are always welcome and can inspire new ideas and improvements. The entire process was carried out in a spirit of open communication, exchanging opinions and suggestions, all aimed at helping us to complete our future tasks as effectively as possible.
- Awareness process: it is important for us to share the knowledge gained from implementing the JPA and this knowledge has now become an integral part of our educational program for schools (the information are tailored to the age and understanding of the pupils).

4. Field visit

We visited the Škocjanski zatok NR (PR4), where we were introduced to the pilot action. The reserve consists of two main parts: a freshwater wetland and a brackish lagoon. The dominant feature of the wetland is extensive reed stands interspersed with open water and muddy banks. This is a typical habitat of the Little Bitern, which is one of the target species of the whole reserve. Reed stands are managed both by mosaic mowing and by grazing. Camargue horses and a special breed of cattle are used for grazing.

Brakish lagoon is supplied with water from the sea and also from the river Rižana. DOPPS, as the manager of the reserve, can regulate the inflow from the river and the sea and thus the salinity of the water in the lagoon.

The lagoon is the place where the Pilot Action measures have been implemented. The measures consist of the creation of two narrow and long strips of mud that serve as nesting sites for Little Terns (*Sternula albifrons*) and Common Terns (*Sterna hirundo*). At the same time, these are areas for the development of saline vegetation. We were able to verify the effectiveness of the measures by observing nesting pairs of terns of both species.

There is an educational path through the reserve with many stops for birdwatching. The stops are covered so that the observer does not disturb the birds. We had the opportunity to observe many endangered bird species including Common shelduck, waders, gulls, terns, etc.

On the field trip we were accompanied by DOPPS specialists in bird conservation and nature protection in general, who informed us in detail about the measures taken. The peer review team spent three hours in PR4 filled with very intensive learning about the site and the measures implemented.

5. Meetings with stakeholders

1	Name	Ines Klinkon
	Organisation/institution	Slovenian Water Agency
	Relation to the Action	Stakeholder - representative of a state institution
2	Name	Robert Gregorič
	Organisation/institution	Slovenian Water Agency
	Relation to the Action	Stakeholder - representative of a state institution
3	Name	Jure Barovič
	Organisation/institution	Port of Koper
	Relation to the Action	Stakeholder - representative of the economy
4	Name	Milka Sinkovič
	Organisation/institution	University of Primorska, Faculty of Tourism Studies
	Relation to the Action	Stakeholder - representative from academia
5	Name	Andreja Poklar
	Organisation/institution	Municipality of Koper

	Relation to the Action	Stakeholder - representative from the municipality
6	Name	Maruška Lenarčič
	Organisation/institution	The Slovenian Third Age University
	Organisation/institution	Stakeholder - representative of individuals/ pensioners
Outcomes of the meeting		
- stakeholders are positive about the implementation of JPA and support the implemented action, - communication with stakeholders is a good example and sets a high standard, - it is very important for the locals that the reserve is open to the public and it is easy to access, - it is also worth noting that the previous Interreg project, IMPRECO, established good conditions for working with stakeholders through the signing of a protocol with them.		

6. Evaluation of the Action

6.1. Assessment of procedures

Availability of documentation
Yes.
Preparation and implementation of restoration measures
All restoration measures were completed in compliance with the regulations and agreements. The funds provided by the Slovenian Climate Change Fund within the Ministry of the Environment, Climate and Energy (this Ministry is also the owner of the Škocjanski zatok NR) covered costs related to preparing documentation and permits, execution of the public procurement process and transporting equipment to the Škocjanski zatok area. This included: - project documentation for execution of works (PZI), No. 45/2022, October 2022, - tender documentation for the public procurement works contract via a competitive procedure with negotiations in accordance with point B. of the first paragraph of Article 44 of ZJN 3 with code IZ02/2022-12-Slovenian regulation, (November 18, 2022), - execution of the public procurement with all related documents and the final report, December 2022, - signing of the contract the selected company: DRAVA vodnogospodarsko podjetje Ptuj d.o.o., contract No: IZ02/2022-16, date: December 6, 2022. - on 9 March 2023, an Annex 2 to the contract No. IZ02/2022-16 was signed with company DRAVA Ptuj d.o.o. for the execution of the works, predicted in the ReCo project - work started on 16 March 2023 and finished till March, 24, 2023.
Stakeholder involvement
Stakeholder involvement was effective and successful, as evidenced by the meeting with stakeholders, which highlighted the importance of their engagement in the management of the nature reserve for ensuring sustainable and efficient environmental protection.

Communication with general public
Communication with the general public was appropriate and was integrated into standard channels such as the website and social media (FB, Instagram). The public responded very positively to all updates regarding the progress of the JPA, as well as to the more detailed information available at the visitor centre of Škocjanski zatok NR.
Sustainability, continuation
- the measures implemented in brackish lagoon may need adjustments over time based on new data (monitoring) or environmental changes, - the cost of maintaining the action's results (regular monitoring, habitat management) must be carefully planned for the long term to ensure the projects continuity, - to secure future financing.
Replication and dissemination
- the approach used in implementing the JPA holds significant potential for replication in other similar areas that face comparable challenges, such as coastal or inland wetlands, - The results will be shared with other experts through articles and publications. One method of dissemination is the publication *Svet ptic* (four issues per year, distributed to over 600 addresses), while another is through the scientific journal *Annales* (published once per year). - the results will also be shared via the website, social media as well as on the N2000 platform in Slovenia (https://natura2000.gov.si/en/).

6.2. Environmental impact

Assess the (anticipated) impact of the implemented measures on the target species/habitats
The implemented measures are expected to have a positive impact on the target species and habitats, specifically by enhancing the ecological conditions for biodiversity. **Monitoring of birds in 2024:** Expected results: establishment of breeding pairs of terns and other migratory birds Achieved results: at least 49 pairs of Common Tern (*Sterna hirundo*), 29 pairs of Little Tern (*Sternula albifrons*) and 1 pair of Kentish Plover (*Charadrius alexandrinus*) on newly created ReCo mudflats **Habitat mapping in 2024:** Expected results: the presence (coverage area) of N2000 habitat types (halophytic vegetation) Achieved results: in progress – the first data of presence (coverage area) of N2000 habitat types will be available after the monitoring in September and October 2024 Over the long term, the measures are expected to contribute to the stability and resilience of the ecosystem, benefiting not only the target species but also the broader biodiversity of the area.
How does the Action contribute to the ecological connectivity along the EGB?
Škocjanski zatok is one of the few preserved salt marshes along the Adriatic coast. These once more widespread habitats survive in small remnants along the coasts of Italy, Slovenia, Croatia and Montenegro. Škocjanski zatok is absolutely essential to the ecological and functional connectivity of these fragments

along the former Iron Curtain, now the Green Belt. It provides connectivity for many specialized animal and plant species as well as habitats.
How does the Action contribute to increasing biodiversity?
By implementing the JPA, the conditions in the reserve's brackish lagoon are expected to improve for many plant and animal species, especially migratory birds, for which the brackish lagoon serves as an important stopover on their migration route as well as a breeding area. An increase in the number of breeding pairs of migratory birds is anticipated, with the mudflats representing crucial nesting areas. The conservation of biodiversity in the brackish lagoon is considered essential for the stability of ecosystems both within the protected area and in its immediate and broader surroundings. The sentinel data collected as part of the ReCo project is to be used in the management of Škocjanski zatok NR, particularly for scientific research, environmental monitoring, climate change effects assessment, and bird monitoring.
Does the Action take into account the climate change? Does it include adaptation measures?
The activity is aimed at addressing the issues caused by climate change in coastal wetlands and it includes adaptation measures.
Has the Action any negative impact?
The activity had a temporary negative impact, namely: - disturbance to the wintering bird species in the brackish lagoon, - impact on aquatic organisms, - increased sedimentation during the works.

6.3. Socio-economic impact, policy

Assess the (anticipated) impact on the local community
- Enhance attractiveness for visitors/tourists - Flood retention/protection - Boost recreational appeal - Strengthen the connection to the Municipality of Koper - Increase well-being for the local community
Assess the (anticipated) economic impact
- More income for the surrounding companies as well as individuals - Another attraction site for the tourists - Attracting Eco tourists – ecotourism, birdwatchers - Contributing to CAP - Common Agricultural Policy with supporting biodiversity, stabilizing hydrological conditions, reducing erosion and improving soil fertility
Policy issues

No conflicts were identified during the preparation and implementation of the JPA. The Decree on Special Protection Areas (Natura 2000 sites) and the Act on the Škocjanski zatok NR are sufficient to protect the nature reserve and facilitate activities that support nature conservation and biodiversity in the area.

7. Summary of strengths and weaknesses and lessons learned

Main strengths, highlights
- cooperation with stakeholders - effective and targeted measures for addressing climate change issues and protecting biodiversity - sharing interdisciplinary knowledge like the one with the construction contractor for the pilot action execution
Main weaknesses
- pollution from surrounding areas (noise, wastewater, light pollution) - possible oil spills in the port that could impact the reserve area
Lessons leaned
- a perfect way of including stakeholders and communicating with them in order to ensure active participation, gather valuable input for the best possible management of the reserve - integration of monitoring technologies like the drone imagery for monitoring advances and offering material for public communication.

8. Key messages

Recommendations for reviewed Action
- Long-term communication and cooperation with all stakeholders are the best way to successfully maintain the area. - The reviewed JPA is an exemplary and successful conservation action in the European Green Belt, but its results can be presented and replicated elsewhere. Its implementation has been effective, the results are successful. The effectiveness is being further monitored. The JPA is well communicated with stakeholders and the public, so its acceptance is high. - For the management stage the continuous work with drones could offer a great tool to monitor factors like erosion and other type of general monitoring. - The management of newly created mudflats should be integrated into the next 10-year management plan for the Škocjanski zatok NR.
Recommendations for all project partners: transferable results
- to seek for additional funding from the tourism sector, - to identify key stakeholders and establish long-term collaboration with them,

- to include knowledge from different fields for the execution of pilot actions to ensure lasting and optimal results.
Policy messages
The demonstrated action can become one of the recommended methodological approaches or strategies for similar measures on coastal salt marshes as well as on inland wetlands. It can therefore be recommended to further present the methods used not only in Slovenia or in the European Green Belt, but basically anywhere.

9. Photodocumentation

Monday, 5th August 2024 - presentation of the JPA in Škocjanski zatok NR to the peer review team (visitor centre of Škocjanski zatok NR)

Tuesday, 6th August 2024 – Field visit

Tuesday, 6th August 2024 – Field visit (examination of the freshwater inflow system with a sluice into the brackish part of the reserve)

Tuesday, 6th August 2024 – Field visit (discussion about completed JPA activities with the peer review members)

Tuesday, 6th August 2024 – Field visit (discussion about JPA between DOPPS and peer review leader)

Tuesday, 6th August 2024 – Meeting with stakeholders in the visitor centre of Škocjanski zatok NR

Tuesday, 6th August 2024 – group photo of peer review team and Škocjanski zatok stakeholders

PILOT REGION 4 - GORENJSKA REGION: REVIVING ALPINE MEADOWS IN KARAVANKE

Content

1. Agenda and participants

Agenda (date) - day 1

Time	Place	Agenda item
16.00 – 16.30	Kranj - Kovačnica business incubator	Presentation of the implemented Action by PP10-BSC Kranj
16.30 – 16.45		Presentation of Preservation Daffodil Programme and meeting with the main stakeholder – Development Agency of Upper Gorenjska (RAGOR)
16.45 – 17.15		Detailed presentation of integrated VR-AR solution related to the biodiversity in Karavanke (focus on Daffodil)
17.15 – 18.00		Discussion with the participants

Agenda (date) - day 2

Time	Place	Agenda item
9.00 – 11.30	Plavški Rovt – Planina Pod Golico	Field visit of one farmer's meadow and meeting with him, meeting with creative local resident
11.30 – 14.00	Planina pod Golico – Španov vrh	Field visit of meadows included in the Action implementation, meeting one farmer
14.00 – 16.00	Tourist farm Pr'Betel	Field visit of owner's meadows and meeting with the farmer, meeting with president of Tourist Association Golica

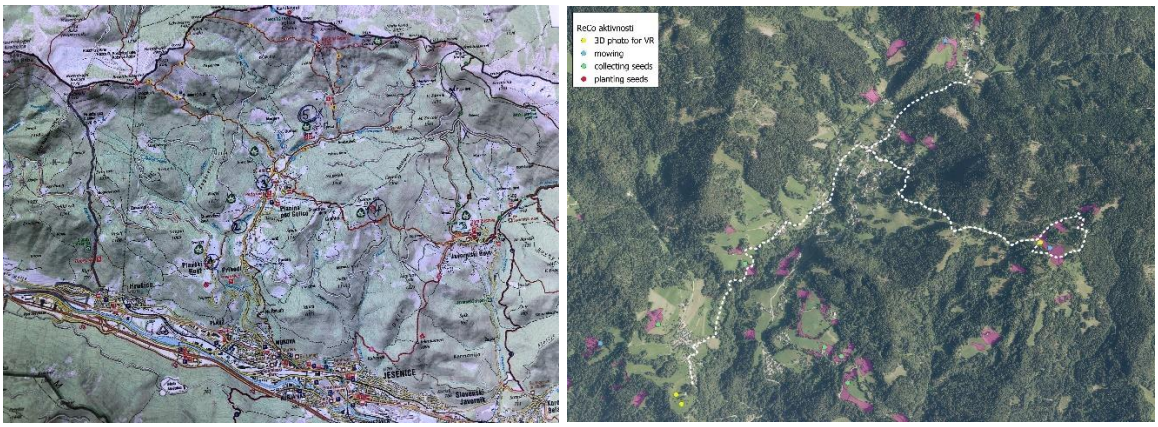
Participants

Name	Organisation, role in the Project	Role in the peer review
Jörg Hacker	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team – Leader
Jörg Schmiedel	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team – Notes Taker
Ondrej Volf	Ametyst	Peer review team
Jakub Skorupski	GAIA	Peer review team
Thomas Wrbka	UniWie	Peer review team
Agnes Groiß	UniWie	Peer review team
Manuela Londoño Jimenez	UniWie	Peer review team
Mateja Korošec	BSC Kranj	Action implementation team
Helena Cvenkel	BSC Kranj	Action implementation team

Eva Štravs Podlogar	Development Agency of Upper Gorenjska (RAGOR)	Action Implementation Team, representative in the name of Municipality of Jesenice
Primož Kljun	Izstop ltd. company	External Expert, part of Action Implementation Team - VR+AR solution
Metod Rogelj	Institute of Republic of Slovenia for Nature Conservation	Action Implementation team
Luka Klinar	Meadow Kovgel	Landowner
Cene Razinger	Planina pod Golico	Creative resident
Jernej Klinar	Primažev Rovt	Landowner
Vera Grgurič	Tourist farm Pr'Betel	Landowner
Katja Medja	President of local tourist association Golica	Action implementation Team - Integrated VR-AR solution

2. Basic information about the visited Action

Name of the Action	Reviving alpine meadowlands in Karavanke (Daffodil preservation)
Implementation period	May 2024 – January 2025
Responsible Project partner	PP10 - Business support centre, ltd.,Kranj (BSC Kranj)
Total budget	59.000 €
Location	Western Karavanke – the area above Municipality of Jesenice
Map	



Target species/habitats
Target habitat: Mountain hay meadows (The Western Karavanke) Target species: General Biodiversity Of Meadows – Preserving Daffodils

Background
The area above the Municipality of Jesenice is: • The most extensive and richest daffodil area in Slovenia – not protected by an Act of Authority. • Lacking a management structure (not established as a natural park). • An area of high biodiversity due to its diverse bedrock. • Home to the mountain daffodil, protected in Slovenia since 1922, but classified as an endangered flower. • Governed by regulations that designate daffodil sites as being of national and local importance. • Partially included in the European network of ecologically important nature sites, Natura 2000. • Insufficiently recognized for the natural value of the daffodil and its protection by locals and visitors. **Issues to Be Solved** • Decline of rich alpine meadows, leading to endangerment of the daffodil. • Changes in agricultural practices, including intensive and extensive farming and overgrowth of farms. • Lack of knowledge about the importance of natural values and biodiversity conservation. • Challenges from mass visitation during the flowering season, including mobility issues, inappropriate visitor behaviour, and trampling on the meadows. **Important Circumstances** • The need to protect natural values in areas without a management plan and lacking ecosystem services (e.g., no declared natural park). • The importance of fostering and supporting sustainable, daffodil-friendly land management and sustainability measures provided by landowners. • The opportunity to upgrade the existing Preservation Daffodil Program (Adapting Farming Scheme), which is strongly supported by the Municipality of Jesenice and integrated into their local policy documents.
Objectives
General Objectives • Encourage the use of conservation measures for certain species. • Raise awareness among landowners of daffodil-covered areas (farmers, etc.). • Raise awareness among the population and visitors about the importance of natural values and biodiversity conservation. • In the long term, establish and improve the management of smaller protected natural areas.

Specific Objectives

- Motivate and engage more farmers to join the Preservation Daffodil Programme, leading to properly managed meadows and more land under conservation.
- Increase awareness among inhabitants and visitors about the biodiversity of this area and the importance of its conservation.
- Attract more visitors during other periods of the year and promote proper behavior in nature.
- Facilitate farmers' work by finding new solutions for mowing steep meadows.
- Increase the number of blooming meadows and maintain the daffodil population in this area.

Expected results

- **2 additional farmers** and **2 hectares** of land managed with proper tillage practices (mowing, grazing, no fertilization).
- **36 farmers inspected** and **40 hectares** of land reviewed.
- **10 daffodil plots counted** (3,291 in 2024, a 1/3 decrease from the previous year) – with expectations for improvement.
- **2.5 liters of seeds collected** from 7 meadows/lands, 3 test fields defined, and seeds sown.
- **4 steep meadows mowed** on 4 participating farmers' land.
- **3 educational and communication events implemented**, raising awareness about biodiversity protection and empowering the public.
- **1 integrated VR+AR solution** developed to present nature, cultural identity, and tourism in the area, aiming to attract visitors outside the daffodil bloom season.
- **3 VR glasses purchased** for interactive presentations.

Measures implemented

1. **Monitoring of landowners** participating in the Adapted Programme.
2. **Monitoring of daffodil plots** to assess population health and coverage.
3. **Insemination project** to enhance biodiversity and daffodil propagation.
4. **Pilot mowing of steep meadows** to explore effective management techniques.
5. **Empowerment of biodiversity awareness** among residents and visitors through education and communication.
6. **Involvement of new landowners/areas** to expand the reach of conservation efforts.
7. Development of a **VR-based communication tool** to promote the region's nature, culture, and tourism.
8. **Purchase of equipment** for the integrated VR+AR solution to enhance visitor engagement.

Stage of implementation at the time of the peer review

3 activities are completed, **2 nearly completed**, **2 in progress**, and **1 is planned for November but has not started yet**.

Completed Activities:

- 2. Monitoring of daffodil plots
- 3. Insemination project
- 4. Pilot mowing of steep meadows

Nearly Completed Activities:

- 1. Monitoring of landowners in the Adapted Programme
- 5. Empowerment of biodiversity among residents and visitors

Activities in Progress:

- 6. Involvement of new landowners/areas
- 7. VR+AR-based communication tool

Activity Not Started Yet:

- Purchase of equipment related to the integrated VR+AR solution

3. Questionnaire for the Action implementation team

3.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	YES	Agreement of BSC Kranj and RAGOR to ask farmers about the possible upgrade of Preserving Daffodil Programme activities they would appreciate to work on in the future. Questions were prepared by BSC and RAGOR and sent to the farmers by RAGOR. Questions were related to their willingness to involve more land, to have joint mower for steep meadows, their opinion on insemination project and if they are interested in clearing the bushes out of their land. Baseline survey also included individual discussions with stakeholders mentioned in point 3 talking about the possible scope of the pilot action, its activities, its possible benefits and risks, as well as about meaningful contributions of the pilot action for protection of Daffodils. Based on the mentioned operational tasks we prepared the document; Joint pilot action development study (Activity 2.2.)
Did you prepare a feasibility study?	NO	We do not have a feasibility study but we have prepared the Joint pilot action development study (Activity 2.2.)

Question	Y/N/ N/A	Comment
Did you identify any conflicts between different protection subjects?	NO	-
Do you have a technical documentation or management plan?	NO	We do not have specific technical documentation. However, the measures are set in the Guidelines for Preservation Daffodil Programme, Document with conditions of the involvement in the programme; (RAGOR)
Did you cooperate with external experts during the measures planning?	YES	In planning phase of the "Daffodils pilot" the following experts were contacted: • Institute of the Republic of Slovenia for Nature Conservation • Local community Jesenice • Jesenice Tourism Information centre • Golica Tourist board • Farmers - owners of the land in pilot area • Development agency of Upper Gorenjska (RAGOR) • Some individuals - inhabitants • Ministry of Natural Resources and Spatial planning With support of Development agency of Upper Gorenjska (RAGOR) the Joint pilot action development study (Activity 2.2.) was prepared. Also, the way of implementing VR-AR solution was communicated in the planning phase with presentation of good practices (meeting of core team with external experts; as well as discussion with stakeholders mentioned above)
Did you face problems in obtaining the necessary permits and approvals?	NO	The approvals of 7 farmers for insemination and 4 for applied for mowing of their steep meadow Permission for seed collection from Ministry of Natural Resources and Spatial planning was signed on 20 June 2024 (it last 1,5 months to get the permission but still on time).
Did you face any legal barriers or conflicts with policies and official strategies?	NO	The Pilot Action is in the line of policies and official local strategies, as well as regional development plan.
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	YES	RAGOR is the most important as initiator and implementor of the upgraded Preserving Daffodil Programme Institute of Republic of Slovenia Nature Conservation (IRSNC) supporting the conservation measures on nature value sites, as

Question	Y/N/ N/A	Comment
		well as the provider of insemination documentation and implementation on the field. Municipality of Jesenice – support the Preserving Daffodil Programme for 8 years with funds Farmers/landowners of the meadows Tourism Jesenice- Information office – involved in the implementation of VR-AR solution, which will be integrated in their web site and glasses will be used to promote the area Tourist Association Golica – President of the Association is involved in preparing some content for VR-AR solution for promotion of daffodils; they will also use the glasses on their annual events in the area Planina pod Golico, Plavški rovt above Jesenice. They are also the closest contact with residents and farmers. Ministry of Natural Resources and Spatial planning as regulatory and legal body responsible for protection of biodiversity.
Did you inform and/or involve them during the preparation phase?	YES	Besides Municipality of Jesenice, RAGOR and farmers, we were in close contact with IRSNC in the preparation phase, as well National Ministry of Natural Resources and Spatial planning was contacted.
Did you face any conflicts with stakeholders during the preparation phase?	NO	-
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	YES	Yes, general public was informed via web page, e-news.

3.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	YES	-
Have you faced any unexpected conditions (e.g., extreme weather, different situation on	YES	Weather conditions: One of the poorest seasons of Daffodil flowers: - Snow at the end of April 2024

Question	Y/N/ N/A	Comment
the site than expected, lack of workers…)?		- Nature: last year 2023 was one of the best That is the reason why the 360° photos and videos are not as good as they should be to attract more visitors with the VR application in the months outside the flowering period. It is possible that we will change the photos in 2025 if there is a better season.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	YES	Constant communication with external experts to implement: Monitoring of implementation situation, plans, dates of implementing, adjusting the process, checking the documents, sometimes participating on the field It is important to keep the right track and you can adjust the activities before implementing it. Additionally, the experts are usually not aware of project specifics and they need more guiding of the PP.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	NO	-
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	YES	Farmers were directly involved in implementation of measures, as well other stakeholders that contribute to smooth implementation of tasks: e.g. local community Jesenice, Tourism info point Jesenice, Institute of the Republic of Slovenia for Nature Conservation.
Have you faced any conflicts with stakeholders?	NO	-
Communication with general public		
Do you communicate with general public?	YES	Information about some activities, empowerment activities are communicated through: Web sites, social media, e-news, local newspapers
Do you carry out public events?	YES	Three public events are part of the implementation, 1 hiking event was organized for general public and one workshop for farmers as well as for the residents of the area Planina pod Golico, the last event is planned to present the VR-AR application to the local residents and stakeholders.
Do you work with volunteers?		Not exactly, but some of the stakeholders are involved in the content, provide their knowledge, content without payment.

3.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	YES	Some new activities will be assessed with short questionnaire to the users (farmers, residents, visitors) Insemination project and mowing of steep meadows was and will be checked with all involved farmers and short assessment report will be provided. We also plan to prepare short questionnaire about the VR-AR solution that will be presented on the presentation event in February 2025.
Do you / will you cooperate with external experts in the assessment?	YES	
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	YES	Institute of the Republic of Slovenia for Nature Conservation Local community Jesenice Jesenice Tourism Information centre Golica Tourist board Farmers -owners of the land in pilot area Inhabitants in pilot area Development agency of Upper Gorenjska (RAGOR) Ministry of Natural Resources and Spatial planning
Will you continue to communicate with general public?	YES	We will report about the results within our PR, social media, web site, e-newsletter, local newspaper…
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	YES	The involvement of farmers is going to be supported via support program of local community Jesenice VR-AR application and glasses will be available on web site of Tourism Jesenice (Municipality of Jesenice) Mowing of steep meadows – trying to find the solution for farmers though cooperation between RAGOR and landowners (LAG project) Insemination will be provided by IRSNC until 2029 (in the process to be agreed)
Is any further financing necessary and have you assured it?	YES	The discussion with local community Jesenice about continuation of the program, trying to apply for funds from LAG projects or other EU funds

Question	Y/N/ N/A	Comment
Is it possible to replicate the measures in different locations?	YES	There can be similar actions implemented in other parts of Gorenjska region and related to the biodiversity in general or on specific endangered species.
Do you have any replicability tools which can be shared?	YES	Pilot protection program for Daffodils; empowerment, insemination, monitoring, … Integrated VR-AR solution
Do you disseminate the project results?	YES	All results will be disseminated in Autumn to other municipalities, Chamber of Agriculture and Forestry, Unit Kranj, Centre for Sustainable Rural Development Kranj, LAG…through different meetings and workshops (Meeting with Environment and Spatial planning Board) General public will be informed by: • Events • e-news • PR • Social media • Local newspaper

3.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
Thorough Planning is Crucial: • Adequate time for planning and stakeholder engagement ensures clear objectives and feasible action plans. • Baseline data collection is essential to measure progress and impacts effectively. **Community Involvement:** • Engaging local communities early and consistently fosters ownership and support. • Addressing community needs and incorporating traditional knowledge enhances project relevance and sustainability. **Adaptive Management:** • Flexibility to adapt plans based on ongoing monitoring and feedback is necessary. • Recognizing that restoration is often a non-linear process helps in managing expectations. **Effective Communication, Including Bottom-Up Approaches:** • Clear and transparent communication with stakeholders minimizes misunderstandings and builds trust.

- Regular updates and feedback loops are vital for maintaining stakeholder engagement.
- Communication with farmers is essential to gather feedback for sustainable and high-quality protection of daffodils.
- Inclusion of the general public is crucial for the survival and protection of daffodils.

Collaboration and Partnerships:

- Strong partnerships with governmental bodies, NGOs, academic institutions, and the private sector provide additional resources and expertise.
- Cross-sector collaboration enhances the impact of restoration efforts.
- Long-term commitment is needed to develop and sustain the management structure of the Western Karavanke.

Technical and Financial Resources:

- Securing adequate funding and technical expertise is critical for project success.
- Diversified funding sources can mitigate financial risks.

Monitoring and Evaluation (M&E):

- Ongoing M&E is essential to track progress, learn from successes and failures, and make necessary adjustments.
- Setting clear, measurable indicators from the outset enables more effective evaluation.

Environmental and Social Considerations:

- Understanding the local ecological context and potential social impacts helps in designing appropriate interventions.
- Restoration projects should aim for both environmental sustainability and social equity.

4. Field visit

The field visit to the pilot area above Jesenice followed a scenic route through Plavški Rovt, Planina pod Golico, Španov vrh, and back to tourist farm Penzion Pr'Betel. The hike included stops at various project sites, showcasing mountain hay meadows in different mowing stages. The steep and uneven terrain highlighted the necessity of specialized machinery, such as remote-controlled mowers, or even manual mowing techniques. Discussions with local stakeholders enriched the visit by providing insights into their roles and experiences within the project.

The measures implemented in the area focus on preserving biodiversity, particularly daffodil meadows, through sustainable farming practices and modern equipment. Farmers work closely with ReCo PP10, ensuring proper timing of mowing and ongoing monitoring. Tourism is integrated into conservation efforts, with awareness-raising activities, such as the "Miss Daffodil" event, fostering public engagement. Local guesthouses like Penzion Pr'Betel actively educate visitors on the importance of preserving these fragile ecosystems.

Key findings emphasize the strong collaboration between stakeholders, the effectiveness of adaptive farming techniques, and the integration of tourism with conservation. However, challenges such as increased tourist pressure on the landscape and the long-term impacts of climate change remain critical. Overall, the visit highlighted both the successes and the ongoing efforts needed to sustain biodiversity in this unique alpine region.

5. Meetings with stakeholders

Name	Eva Štravs Podlogar
Organisation/institution	Development agency of Upper Gorenjska - RAGOR
Relation to the Action	Cooperating and coordinating partner in the “Let's keep daffodils” action
Outcomes of the meeting	
Key Points: • Strong cooperation with ReCo PP10 over many years, involving constant exchange and joint actions. • Activities include contracting farmers for daffodil meadow preservation, field inspections, monitoring sites, and gathering farmers’ feedback. • Establishing practical solutions for sustainable daffodil tourism, contributing to protection and generating local income. **Outcome:** Demonstrated a robust partnership, enabling effective preservation efforts and knowledge sharing with farmers.	
Name	Metod Rogelj
Organisation/institution	Institute of Republic of Slovenia for Nature Conservation
Relation to the Action	Provide ecological and botanical expertise
Outcomes of the meeting	
Key Points: • Stressed the importance of farming for maintaining biodiversity, particularly focusing on daffodils. • Addressed the challenges of conserving nature on privately owned lands, where collaboration is essential. • Highlighted the benefits achieved by daffodil insemination, i.e. the possibility to regenerate deteriorated sites and achieve better flexibility for management. **Outcome:** Reinforced the critical connection between agriculture and biodiversity, underscoring the value of collaborative conservation efforts.	
Name	Luka Klinar
Organisation/institution	Landowner
Relation to the Action	Meadow Kovgel

Outcomes of the meeting	
Key Points: • Shared opinions on the programme for preserving daffodils and the need for cooperation with experts and tourism. • Provided examples of sustainable practices, including seed collection and daffodil monitoring on his land. • Discussed challenges of surviving as a farmer in these regions and balancing sustainability with tourism impacts like cross-country activities by hikers, bikers, and motocross riders. **Outcome:** Contributed valuable insights on integrating farming, sustainability, and tourism for long-term ecological and economic benefits.	
Name	Jernej Klinar
Organisation/institution	Landowner
Relation to the Action	Meadow Primažev Rovt
Outcomes of the meeting	
Key Points: • Discussed difficulties in cultivating inaccessible land and the need to adapt mowing practices to support biodiversity. • Highlighted specific problems caused by increased tourist visits, including pressure on fragile ecosystems. **Outcome:** Provided practical perspectives on the intersection of farming, biodiversity preservation, and tourism impacts, emphasizing the need for sustainable practices.	
Name	Vera Grgurič
Organisation/institution	Landowner
Relation to the Action	Tourist farm Pr'Betel
Outcomes of the meeting	
Key Points: • Introduced her farm and guesthouse activities, showcasing how daffodils contribute to their tourism offerings. • Described participation in ReCo pilot activities, such as mowing demonstrations with remote-controlled equipment and additional maintenance. • Expressed concerns about the future of daffodils in the face of increasing weather extremes, while also observing changes in their environment. **Outcome:** Provided a holistic perspective on the interconnectedness of farming, tourism, and ecological preservation, with practical examples of ReCo's impact.	
Name	Katja Medja
Organisation/institution	Golica Tourist Association

Relation to the Action	President of the Golica Tourist Association
Outcomes of the meeting	
Key Points: • Presented the activities of the Golica Tourist Association, including events like Miss Daffodil and other awareness-raising efforts. • Highlighted the benefits of the ReCo pilot activities for the region, emphasizing the positive impacts on sustainability and community engagement. • Shared future plans to expand awareness and tourism activities tied to daffodil preservation. **Outcome:** Demonstrated the role of tourism in promoting ecological awareness and fostering community-based sustainability initiatives.	
Name	**Cene Razinger**
Organisation/institution	none
Relation to the Action	Creative Resident
Outcomes of the meeting	
Key Points: • Visit to Cene Razinger's "Alps in Small" rock garden – a local attraction and gathering point for regional visitors. • Attitude of locals toward daffodils. • Attitude of locals toward tourists during peak times. **Outcome:** Cene Razinger is a dedicated resident who promotes the value of daffodils to tourists while advocating for respectful visitor behavior to protect the local environment and community balance.	

6. Evaluation of the Action

6.1. Assessment of procedures

Availability of documentation
Yes. All necessary documents for the peer review were available, as a detailed presentation of activities, an informative excursion to relevant sites, and all required documentation for a thorough assessment were provided.
Preparation and implementation of restoration measures
The restoration measures were prepared and implemented effectively from a technical point of view. They are convincing, well-executed, and clearly yielding positive results.
Stakeholder involvement
Yes, communication and involvement of stakeholders were highly appropriate. Communication with stakeholders was excellent, enabling open discussions on all necessary facts and aspects. It was evident that the actions heavily relied on the involvement and support of local stakeholders, who collaborated effectively and demonstrated strong unity.
Communication with general public
Yes, communication with the general public was highly effective and thoughtfully implemented. A) Regional daffodil communication efforts were exemplary, featuring engaging events such as a hiking tour with a botanist on May 24 (30 participants), a guided walk on May 10, and two remote mower presentations for farmers and the general public, which attracted 50 attendees. These initiatives significantly contributed to raising awareness and fostering personal acceptance. B) While some stakeholders, like farmers, noted concerns about visitor behavior (e.g., leaving paths or trampling meadows), these observations are being actively addressed. The development of a VR application with behavioral guidelines, as part of the ReCo project, demonstrates a forward-thinking approach and provides an excellent solution to further enhance communication and visitor management.
Sustainability, continuation
The sustainability of Action's results presents a mix of challenges and opportunities, with promising mechanisms in place to support long-term impact. One area of concern is the long-term persistence of mowing practices, as these are labor-intensive and not well-compensated. This raises questions about their feasibility over time without additional incentives or support. Additionally, the current system of yearly financing decisions hinders farmers' ability to engage in long-term planning, creating uncertainty in their operations and commitment to sustainable practices. However, significant steps have been taken to enhance sustainability. The development plan extending until 2030 provides a structured and forward-looking approach, offering a framework for continued progress. Moreover, the VR application created within the ReCo project represents an innovative tool for fostering awareness and engagement. Its management by the Jesenice tourist information office, with periodic updates by project partners, ensures its relevance and utility over time. A particularly promising development is the planned establishment of an association of mountain farmers. This initiative has the potential to amplify farmers' voices, advocating for better and more reliable long-

term financing solutions. Such an organization could play a pivotal role in addressing some of the challenges currently faced, strengthening the sustainability of the Action's outcomes.
Replication and dissemination
The replication potential of this initiative is outstanding. BSC Kranj and RAGOR, as regional development agencies, access diverse audiences beyond traditional nature conservation. Their strategic use of the flagship species, the daffodil, integrates conservation into daily life—seen in gardens and even car dealership windows. Collaborations with local farmers and IRSNC ensure high expertise while turning weaknesses into strengths through smart stakeholder involvement. Dissemination is equally effective. The ReCo project and IRSNC provide platforms for sharing knowledge with conservationists, while the agencies' broad networks reach new stakeholders. This approach exemplifies how partnerships and flagship species can drive replicable, impactful conservation outcomes.

6.2. Environmental impact

Assess the (anticipated) impact of the implemented measures on the target species/habitats
The measures show clear benefits for the daffodil and its habitats, guided by extensive scientific advice and thorough assessments. Quantitatively, early data indicate improved habitat quality and stable daffodil populations, with measurable gains in coverage. Qualitatively, the management aligns closely with the species' ecological needs, ensuring effectiveness and sustainability. While some actions are ongoing, the likelihood of achieving expected results is high due to adaptive management and evidence of early success, supported by expert organizations like IRSNC.
How does the Action contribute to the ecological connectivity along the EGB?
The Action significantly enhances regional connectivity by involving many sites, creating a strong network of habitats along the European Green Belt. To address potential challenges from changes or abandonment of land use, the Action improves working and economic conditions for farms and strengthens their networks. This approach demonstrates how ecological connectivity benefits from social connectivity, ensuring long-term functionality and resilience.
How does the Action contribute to increasing biodiversity?
The Action contributes to increasing biodiversity by aligning with European conservation policies, such as the Habitats Directive, to safeguard and maintain man-made habitats in good condition. Additionally, targeted measures like insemination directly enhance biodiversity, ensuring the resilience and richness of these habitats.
Does the Action take into account the climate change? Does it include adaptation measures?
The Action takes climate change into account to some extent. By preserving daffodil meadows, it contributes slightly to carbon storage, supporting climate mitigation. Additionally, the Action addresses potential erosion risks associated with land management changes, incorporating adaptation measures to safeguard soil stability and resilience.
Has the Action any negative impact?
The Action has no negative impact. Its implementation is carefully designed to ensure positive outcomes for biodiversity, habitats, and local communities.

6.3. Socio-economic impact, policy

Assess the (anticipated) impact on the local community
The Action has a stabilizing impact on the local community by strengthening opportunities for residents to secure their livelihoods locally. This fosters a positive connection between the community and nature conservation. The flagship species serves as a social identification point, enhancing community pride and engagement.
Assess the (anticipated) economic impact
While exact economic data is not available, the Action positively impacts the region by extending the tourism season. The daffodil blooming in late spring and early summer generates additional demand for tourism services outside the peak summer months, boosting local economic activity.
Policy issues
The Action is well-integrated into existing policies but addresses specific challenges: meadow abandonment leading to reclassification as legal forest, freedom of roaming for tourists, and insufficient subsidies for farmers. These issues are partly mitigated through stakeholder engagement and improved support for land management. Additionally, the Action contributes to the future regional development plan, ensuring its long-term alignment with local needs and strategies.

7. Summary of strengths and weaknesses and lessons learned

Main strengths, highlights
• **Excellent stakeholder involvement** ensures effective collaboration and shared ownership of the Action. • **Perfect integration of local people**, especially through events, strengthens community engagement and support. • **Iconic flagship species (daffodil)** serves as a strong regional identifier and an outstanding marketing tool.
Main weaknesses
• The **economic situation of farmers** remains marginal, as daffodil meadow preservation does not provide sufficient income for livelihoods. • A clear dilemma exists: **beneficiaries of daffodil meadow management** are primarily vendors of tourism services and nearby villagers, while farmers, who bear the workload and costs, benefit less directly.
Lessons leaned
• Leveraging a **flagship species** effectively boosts conservation impact and regional identity. • **Strong stakeholder involvement** and community engagement are critical for the success and sustainability of conservation actions.

8. Key messages

Recommendations for reviewed Action
• **Guarantee long-term financing** for farmers to ensure reliable planning and sustainable management; involve economic beneficiaries in funding efforts. • **Maintain excellent stakeholder collaboration**, continuing to build strong partnerships and trust. • **Strengthen cross-border cooperation** with daffodil meadow sites in neighboring countries to share best practices and enhance regional connectivity.
Recommendations for all project partners: transferable results
• **Stakeholder cooperation and involvement** in this Action is exemplary and can serve as a blueprint for establishing effective management regimes in other restoration projects. • **Integration of the flagship species** into regional identity and marketing is paradigmatic, offering a model approach for other regions to replicate and adapt. • Emphasize the importance of community engagement and local pride in ensuring long-term success and sustainability of restoration efforts.
Policy messages
• **Strengthen support for mountain farmers** through enhanced financial and logistical aid, enabling them to preserve valuable natural and tourism assets. • **Disestablish the automatism** that reclassifies meadows with tree growth as forests, ensuring the possibility to maintain daffodil meadows. • **Address off-path roaming** by visitors through effective information campaigns and, if necessary, controls to protect sensitive areas. • **Ensure regular grant financing** for the preservation of European Green Belt assets to support long-term conservation. • **Enhance cross-border cooperation** with neighboring countries, such as Austria, to align efforts for daffodil meadow conservation.

9. Photodocumentation

Figure 1 Hike from Plavški rovt

Figure 2 Meadowland Kovgel

Figure 3 Meadowland Kovgel

Figure 4 Meeting with Luka Klinar.

Figure 5 Primažev rovt

Figure 6 Primažev rovt

Figure 7 Tourist farm Pr' Betel; Meeting with Vera Grgurič and Katja Medja

Figure 8 Tourist farm Pr' Betel, Specialized equipment for mowing on challenging terrain.

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PILOT REGION 5 - IŃSKO LAKELAND

Content

1. Agenda and participants

Agenda 1 September 2024 – day 1

Time	Place	Agenda item
19:00-21:00	Wałcz, Hotel “Biały Domek”	Get together and welcome dinner

Agenda 2 September 2024 – day 2

Time	Place	Agenda item
9:00-10:30	European bison Conservation Breeding Centre, Jabłonowo	Presentation of and discussion on the Joint Pilot Action Ińsko Lakeland (reasons for implementing JPA - conservation priorities, including valuable and threatened species and habitats, preparation and planning, description of the restoration measures, implementation, results and environmental, socio-economic and political impacts)
10:30-11:30	European bison Conservation Breeding Centre, Jabłonowo	Presentation of and discussion on communication activities and cooperation with stakeholders and the wider public
12:00-13:00	European bison Conservation Breeding Centre, Jabłonowo	Guided tour in the "Dzika Zagroda" - European bison and Eurasian lynx Conservation Breeding Centre
13:00-14:00	European bison Conservation Breeding Centre, Jabłonowo	Lunch
14:00-16:00	European bison Conservation Breeding Centre, Jabłonowo	Meeting with stakeholders
16:30-17:30	Cultural Center in Mirosławiec - Regional Bison Center	Visit to the Cultural Center in Mirosławiec - Regional Bison Center
17:30-18:30	Piecnik	Field trip - observation tower for observing bisons
19:00-21:00	Wałcz, Hotel “Biały Domek”	Dinner

Agenda 3 September 2024 – day 1

Time	Place	Agenda item
9:00-14:00	Ińsko Lakeland	Field trip (tracking and observation of European bisons and presentation of their conservation issues; off-road cars provided by West Pomerania Nature Society)
14:00-15:00	Jabłonowo	Lunch
16:00-18:00	Wałcz, Hotel “Biały Domek”	Final discussion and conclusions - identification of challenges and risks, problems in the JPA implementation, completion of the questionnaire

Participants

Name	Organisation, role in the Project	Role in the peer review
Ondřej Volf	Ametyst	Peer review team - leader
Helena Cvenkel	BSC Kranj	Peer review team
Sonia Pytkowska	Core-Consult	Project Management
Vincent Babl	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
David Hubl	Ministry of Environment of the Czech Republic	Peer review team
Jörg Schmiedel	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
Jakub Skorupski	Green Federation "GAIA"	Action implementation team
Aneta Kozłowska	Green Federation "GAIA"	Action implementation team
Magdalena Tracz	West Pomeranian Nature Society	Associated Partner
Maciej Tracz	West Pomeranian Nature Society	Associated Partner
Malwina Kujawa-Strejk	West Pomeranian Nature Society	Associated Partner
Łukasz Strejk	West Pomeranian Nature Society	Associated Partner
Roksana Baryło	West Pomeranian Nature Society	Associated Partner
Dorota Musielak	The Regional Directorate for Environmental Protection in Szczecin	Stakeholder
Renata Charkiewicz	The Regional Directorate for Environmental Protection in Szczecin	Stakeholder
Artur Furdyna	nature guiding	Stakeholder
Magdalena Urlich	nature guiding	Stakeholder
Marcin Grzegorczyk	West Pomeranian Nature Society	Stakeholder
Roman Lizoń	Veterinarian	Stakeholder
Małgorzata Butkiewicz	Mirosławiec Forest District	Stakeholder
Justyna Kujawa	Municipality of Mirosławiec	Stakeholder
Andrzej Bejger	Złocieniec Forest District	Stakeholder
Anna Dzida	Cultural Center in Mirosławiec	Stakeholder

2. Basic information about the visited Action

Name of the Action	**Enhancing Migration Routes for European Bison Conservation in NW Poland**
Implementation period	01.01.2024 – 28.02.2025
Responsible Project partner	Green Federation "GAIA" (PP5)
Total budget	69,000.00 €
Location	Ińsko Lakeland, GPS: 53.4069238692438, 15.71472273621589
Map	

Target species/habitats
The priority species in the region for the ReCo project is the European bison *Bos bonasus*. The situation of the species' population in the world has indeed seen significant improvements, particularly over the past two decades. However, the total number of European bison worldwide remains below 10,000

individuals (as of the end of 2021, according to the Bison Pedigree Book, there were 9,554 individuals in the wild and in captivity), which falls short of the assumed minimum safe population size of 10,000 individuals.

The Polish population of European bison has also shown improvement, with the size of the population reaching 2,223 individuals in the wild and in captivity. However, their occurrence is limited to a few isolated areas, and the population is at risk due to the high relatedness of all individuals, stemming from a small number of founders. This relatedness makes the population vulnerable to decimation or even extinction, particularly under the influence of diseases like the blue tongue disease.

In Western Pomerania, the West Pomeranian Nature Society has been actively undertaking protective measures for the European bison since 2005. These initiatives include captive breeding, reintroduction, translocations, GPS monitoring (80 individuals are currently equipped with GPS-collars), interventions, winter feeding, and veterinary services. As a result of these efforts, the number of bison has in-creased, and natural diversification of herds has been initiated. The West Pomeranian population, currently consisting of nearly 350 bison (with 77 residing in Ińsko Lakeland), is dynamically growing and is distributed among 11 herds along the borders of Zachodniopomorskie, Lubuskie, and Wielkopolskie voivodeships. Since 2005, thanks to the activities of the West Pomeranian Natural Society, the population of this species in Western Pomerania has increased 15 times.

Until now, the main approach to European bison protection has been focused on controlling their movement to minimize conflicts with local communities (such as damage to crops) and to safeguard the bison from traffic accidents. Overall, while progress has been made in improving the situation of European bison populations, continued conservation efforts are crucial to ensure their long-term survival and genetic diversity.

Background

In contemporary conservation efforts, addressing migration barriers is imperative to counteract the isolation of individual herds. The consequential limited gene flow contributes to low genetic diversity, fostering inbreeding and subsequently increasing vulnerability to diseases and environmental changes.

Another critical concern revolves around the risk of low social acceptance due to numerous large herds causing damage to crops. This aspect not only threatens the harmonious coexistence of wildlife and agriculture but also poses challenges to garnering support for conservation initiatives.

Furthermore, the persistent threat of poaching may hinder population growth, despite the birth of approximately 40 calves per year. There were 24 individuals illegally killed in the last 5 years. The problem is mainly the tolerance of such behaviour by society, as well as criminal law enforcement authorities. This highlights the urgent need for collaborative efforts in implementing effective strategies to mitigate poaching and ensure the sustained growth of the population.

In conclusion, the Joint Pilot Action is essential to address migration barriers, mitigate human-wildlife conflicts, and combat illegal activities such as poaching. By adopting a collective approach, we can work towards ensuring the long-term viability of these endangered populations and safeguarding biodiversity.

The focus of our efforts lies in supporting of the reintroduction program established by the West Pomeranian Nature Society, ReCo project's Associated Partner, since 2005. This comprehensive initiative encompasses various strategies, including captive breeding, reintroduction, translocations, interventions, winter feeding, and veterinary services. Through these concerted actions, we aim to not only increase the overall bison population but also facilitate the natural diversification of herds. We are pleased to report a steady rise in the number of bison, and our ongoing endeavours have successfully initiated the natural diversification process within the herds.

Notably, the Ińsko Lakeland has been selected as the newly established site of a herd of reintroduced European bison under the West Pomeranian Nature Society reintroduction initiative. This chosen location

serves as the thriving habitat where the reintroduced bison population is now flourishing as part of our broader conservation efforts. This holistic approach underscores our commitment to the preservation and thriving of the bison population in the region.
Objectives
Goal – Increasing the size and range of European bison population restituted in NW Poland. Objectives: 1. Enhancing migration routes for European bison herds. 2. Minimizing human – European bison conflicts.
Expected results
• migration barriers identification • good practices in transport infrastructure investments • migration corridors restoration • gene flow promotion • genetic diversity growth
Measures implemented
Restoration Approaches include the enhancement of the management of European bison herds reintroduced in NW Poland. This involves identifying migration barriers and formulating recommendations for transport infrastructure investments. Additionally, efforts are directed towards optimizing the population's spatial structure by maintaining low densities (<3 individuals/1,000 ha) through the increase in the number of herds. The implementation of constant population monitoring is crucial, ensuring a swift response to potential human-bison conflicts. Outlined below are the planned techniques and methods: 1. GPS-Collar Deployment: equipping additional 20 animals with state-of-the-art GPS collars enhances monitoring and analysis of their movements and behaviours, providing valuable data for conservation efforts. 2. Migration Barriers Identification: a comprehensive assessment identifies and understands migration barriers that may impede the natural movement of wildlife. This entails studying geographical features, human-made structures, and other factors contributing to obstacles in the animals' migratory routes. 3. Poaching Identification and Tracking: implementing advanced tracking technologies actively identifies and monitors instances of poaching. The integration of real-time tracking systems allows for prompt responses to potential threats, contributing to the protection of endangered species and the preservation of biodiversity. 4. Formulation of Recommendations for Transport Infrastructure Investments: as part of the pilot investment, a thorough analysis of the existing transport infrastructure in the region is conducted. Based on the findings, detailed recommendations for strategic investments in transportation networks are formulated, aiming to balance human development needs with wildlife conservation and promote sustainable coexistence.
Stage of implementation at the time of the peer review
In progress.

3. Questionnaire for the Action implementation team

3.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	No	
Did you prepare a feasibility study?	No	
Did you identify any conflicts between different protection subjects?	No	
Do you have a technical documentation or management plan?	Yes	Green Federation "GAIA", West Pomeranian Nature Society
Did you cooperate with external experts during the measures planning?	Yes	Consultation with experts from the University of Szczecin - knowledge transfer, experience sharing
Did you face problems in obtaining the necessary permits and approvals?	No	
Did you face any legal barriers or conflicts with policies and official strategies?	No	
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	Local communities, the State Forests organization, the Land Forces Training Centre in Drawsko, the Municipality of Jabłonowo, farmers, and tour operators - all groups affected by the conservation efforts for European bison. In the process of stakeholder identification, a diverse range of entities has been recognized as integral participants of the Joint Pilot Action, including local communities, the State Forests organization, the Land Forces Training Centre in Drawsko, the Municipality of Jabłonowo, the Regional Directorate for Environmental Protection in Szczecin, University of Szczecin, farmers, and tour operators.
Did you inform and/or involve them during the preparation phase?	Yes	Consultations, involvement in activities planning. A national stakeholder workshop in Poland, along with two local stakeholder workshops, were organized to actively promote awareness and engagement regarding the migration patterns of the European Bison. These workshops serve as crucial platforms for fostering discussions, sharing information, and garnering support for the conservation efforts focused

Question	Y/N/ N/A	Comment
		on the migration behaviours of this iconic species. Furthermore, these events also provide a forum to disseminate valuable insights and updates on the monitoring initiatives aimed at understanding and safeguarding the migration routes and behaviours of the European Bison. The collective efforts of national and local stakeholders in these workshops contribute significantly to the broader objectives of conservation and sustainable management of the European Bison population in Poland.
Did you face any conflicts with stakeholders during the preparation phase?	No	
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	No	

3.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	Yes	
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	No	
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	Yes	Consultation with experts from the University of Szczecin – knowledge transfer, experience sharing.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	No	
Stakeholder involvement (including the local community)		

Question	Y/N/ N/A	Comment
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	Local communities, the State Forests organization, the Land Forces Training Centre in Drawsko, the Municipality of Jabłonowo, farmers, and tour operators - website, local events.
Have you faced any conflicts with stakeholders?	No	
Communication with general public		
Do you communicate with general public?	No	
Do you carry out public events?	Yes	
Do you work with volunteers?	Yes	

3.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	No	
Do you / will you cooperate with external experts in the assessment?	Yes	
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	No	
Will you continue to communicate with general public?	Yes	Publication of the results in scientific journals.
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	
Is any further financing necessary and have you assured it?	No	
Is it possible to replicate the measures in different locations?	Yes	

Question	Y/N/ N/A	Comment
Do you have any replicability tools which can be shared?	Yes	Community-based approaches are integral to the development of the Joint Pilot Action, ensuring active involvement of stakeholders. This inclusive process prioritizes incorporating their perspectives, addressing concerns, and incorporating suggestions into the decision-making process. To enhance awareness, community events, art installations, and social media platforms will be leveraged to underscore the significance of preserving migration routes for European bison. These initiatives aim to highlight the vital role played by local communities in this conservation endeavour. Additionally, proactive mechanisms will be employed to address human-wildlife conflicts, minimizing negative interactions between bison and local communities. Through these comprehensive strategies, the conservation efforts not only prioritize the European bison's migration routes but also emphasize the collaborative and community-centric nature of the initiatives for sustained success.
Do you disseminate the project results?	Yes	Publication of the results in scientific journals.

3.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
The implementation of the Joint Pilot Action in Ińsko Lakeland, focused on enhancing migration routes for European bison conservation, has yielded valuable lessons and insights for future restoration projects. One of the key successes was the improvement of ecological connectivity, allowing bison to move more freely across the landscape. The use of GPS tracking technology played a crucial role in monitoring bison movements, providing data-driven insights for better management. Stakeholder engagement was another major strength, as collaboration with local communities, conservation agencies, and governmental bodies ensured smoother project execution and increased support for bison conservation. Additionally, biodiversity gains were evident through efforts to maintain low population densities and promote genetic diversity, helping to establish a more sustainable bison population. The project also demonstrated strong sustainability measures by integrating conservation efforts into long-term regional plans. However, several challenges emerged during the preparation and implementation of the action. Despite the achieved progress, some migration barriers, such as road networks and human settlements, still hindered bison movements, highlighting the need for additional wildlife corridors and infrastructure adaptations. Human-wildlife conflicts also became apparent, particularly with farmers experiencing crop damage due to roaming bison, necessitating better mitigation strategies. Poaching remained a serious threat, with reports of illegal killings affecting population growth, underscoring the need for stronger enforcement measures. Technical challenges related to GPS tracking devices, including malfunctions and data transmission errors, presented operational difficulties that need to be addressed in future initiatives.

Budget constraints further limited the scope of conservation efforts, making large-scale habitat restoration difficult.

To enhance future restoration projects, several recommendations emerge from the experience in Ińsko Lakeland. Investing in ecological corridors and wildlife crossings would further improve connectivity, reducing the risks posed by infrastructure barriers. Adaptive management strategies should be implemented, incorporating real-time tracking and rapid intervention plans to address human-wildlife conflicts more effectively. Expanding the scope of GPS monitoring with improved tracking technology and longer battery life would enhance data collection and analysis. Greater community engagement is also essential, with more educational programs and compensation mechanisms to gain broader support from farmers and local stakeholders. Policy advocacy should be strengthened to ensure conservation projects align with regional and national development plans, facilitating smoother legal approvals and funding opportunities.

Effective communication and dissemination of project outcomes remain crucial. Transparent reporting through regular workshops and digital updates would help maintain interest and support from stakeholders. Leveraging media outreach, including social media and news outlets, would further promote the project's successes and inspire similar initiatives in other regions. Ensuring long-term sustainability requires stronger legal protections against poaching, with enhanced enforcement and collaboration with law enforcement agencies. Integrating bison conservation with land-use policies would reduce conflicts with agriculture and infrastructure development, supporting coexistence. Securing continuous funding through EU programs, government support, and private partnerships will be vital to sustaining conservation and monitoring efforts beyond the initial project timeline.

The experience from the Ińsko Lakeland pilot action provides a comprehensive understanding of the challenges and opportunities associated with European bison conservation. By building on these lessons, future projects can improve their effectiveness in restoring migration routes, enhancing biodiversity, and promoting long-term ecological sustainability in the region.

4. Field visit

The team had a detailed overview over the actions taken in the region and it was possible to see the human-bison interaction in the field.

Furthermore, we were able to visit the bison visitor centre and got a nice overview of the site. Many very good informative signs and educational materials are provided there, helping to increase the positive image of the European bison for interested visitors. The visitor centre also includes a breeding facility for lynx, which we also had the opportunity to visit.

We were also able to visit the nearby town of Mirosławiec, which had many elements of the European bison depicted on public spaces. (e.g. Wall-Paintings, signs and a statue).

We also visited the cultural centre of Mirosławiec, which also had the bison as a major element of their exposition (even though the centre was under construction, we could still see that the bison images were present there at all times during construction).

We visited a bison herd in the wild, which gave us the opportunity to directly observe the animals in the wild, to see the collars on some individuals and learn about the strategics behind collaring of the bison. It was also possible to understand the deep knowledge that is associated with human-bison interactions. It was very clear for all participants, that a long time of adaption was necessary for the bison to get used to the team of the Western Pomeranian Nature Society.

At the end of the field trip, we were able to see a feeding place and a watchtower, which were constructed to:

- prevent bisons from entering crop-fields in the winter
- to give visitors the opportunity to see bisons while they cross open habitat

As a non-project related part of the trip, we were able to watch a lynx rewilding, which was very emotional and unique opportunity for the team members.

5. Meetings with stakeholders

Long term cooperation with the JPA-team is intended by the stakeholders and already taking place!

Monitoring is the main action, while the collars bought over ReCo funds represent the necessary tool for the action

A very positive perception of the pilot action was present with all stakeholders present at the meeting. Nevertheless, the administrative processes can be very challenging sometimes.

The Action is very sustainable and will likely lead into follow-up cooperation in the future. No present stakeholder had any issues that was addressed to the team which would mention severe problems that could lead to an end of cooperation in the future

1	Name	Dorota Musielak
	Organisation/institution	The Regional Directorate for Environmental Protection in Szczecin
	Relation to the Action	Supervision of conservation of endangered species; NATURA2000 directorate responsible person; coordination of activities together with the state institutions and NGOs
2	Name	Renata Charkiewicz
	Organisation/institution	The Regional Directorate for Environmental Protection in Szczecin
	Relation to the Action	Supervision of conservation of endangered species; NATURA2000 directorate responsible person; coordination of activities together with the state institutions and NGOs
3	Name	Artur Furdyna
	Organisation/institution	nature guiding
	Relation to the Action	President of a local small NGO „Rewilding Oder Delta“ (RDO); interested in reintroduction of the European bison for nature guiding purposes
4	Name	Magdalena Urlich
	Organisation/institution	nature guiding
	Relation to the Action	Nature guide and as part of the “ROD” organization; works with tourists, education activities, renaturalization; show local communities and citizens the importance of the actions and increase active participation
5	Name	Marcin Grzegorczyk, Łukasz Strejk, Roksana Baryło
	Organisation/institution	West Pomeranian Nature Society
	Relation to the Action	Key Collaborations made with Lukasz and Roksana (e.g., bison collaring, bison Emergency Service)
6	Name	Roman Lizoń
	Organisation/institution	Veterinarian
	Relation to the Action	Veterinarian who has been involved in the reintroduction program from the beginning (40 years), wild animals, hard f.i. for vaccination; He needs to learn and identify the major threats that are linked to EB disease; he has a very good network with others that work with European bisons in the wild.

7	Name	Małgorzata Butkiewicz
	Organisation/institution	Mirosławiec Forest District
	Relation to the Action	State forest department of the region Mirosławiec; hope for successful reintroduction of their populations for conservation of connectivity in the regions‘ forests; project partner with West Pomeranian Nature Society
8	Name	Justyna Kujawa
	Organisation/institution	Municipality of Mirosławiec
	Relation to the Action	Representative of municipality of Mirosławiec; Affiliated with the bison reintroductions because the species serves as a trademark for the area. Help with administrative processes linked to the EB reintroductions
9	Name	Andrzej Bejger
	Organisation/institution	Złocieniec Forest District
	Relation to the Action	Involved in photography and works as a forest guard; in the field his tasks are to prevent poaching and provide security services in the forest. Lots of valuable photo-material was collected by him.
10	Name	Anna Dzida
	Organisation/institution	Cultural Center in Mirosławiec
	Relation to the Action	Cultural sector representative; Support different activities of the program.

Outcomes of the meeting

Overarching Assessment of the Peer-Review Team:

- Long term cooperation of stakeholders intended
- Communication channels between action and stakeholders is very well established
- Positive attitude of the forestry administrative towards the action
- Proactive addressing of problems arising through the action (bison emergency hotline)
- Longterm coexistence of humans and bisons (Collars are the tools needed for that) → ReCo is an integral part of this emergency service
- Good cooperation between the state-owned forest/military areas and the bison conservation
- General very good perception of the bisons (“our” bisons) by the public → Bisons are very popular in Poland and it was that way for a very long time already (emblematic species, king’s species)

Specific Questions and their answers discussed during the meeting:

1. **Question “Tourism”: Estimates of number of tourists that come primarily for the bison conservation projects?**
   - WPNS: they know exactly: 20,000 come to visit the breeding centre.
   - Magda from RDO, worked in tourist information centre → good data is hardly available → it is viable for the area that there is enough information available on how to interact with the animals, so that tourist can harmlessly travel the area and interact with the EB; it should be forbidden to

use any guides → animals could be moved to a certain place with baits instead of using experienced nature guides to really find the animals in the wild.

- NGO ROD → lots of photographers come for the bisons.
- It used to be possible to hire guides to encounter the animals in the wild. That is now still allowed (in eastern Poland (National Parks) it still is common → huge enclosures, or you hire a park ranger → feeding places, big touristic economy connected) → the guides in the pilot region do not want to increase the frequency in the forest with the bisons.

2. **Question: "Is there any major economic loss related to the EB in the forestry industry or the state-owned forests?"**
   - Representative of state forestry: definitely no! → state forests are involved as an institution in the reintroduction → from the state forest perspective it is not a problem; maybe it is for farmers though → compensations are necessary! But there is not a lot of damage, which is caused by the bisons (despite the opposite forecast was given before!)
   - Cooperation of around 30 state forest departments → in any case there are complaints.
3. **Question: Is there a possibility of too many tourists are coming? How will you deal with them?**
   - West Pomeranian Nature Society → visitor centre is a good solution for controlling the visitors and to let them see the bisons.
4. **Question: Is the prohibition of the access to certain areas a valid option?**
   - One solution is training expert nature guides → channel the touristic traffic.
   - Inform local communities that it is their natural heritage.
   - Role of local authorities is very important here, as they should have the last decision on which areas should be impassable.
5. **Question: How do local people that you know perceive the bisons? Do they also confront you with negative experiences related to the bisons?**
   - There will always be people that complain.
   - On the one hand → no there are no problematic issues related.
   - On the other hand, it depends on the media presentation, information may be negative in terms of bison as the "cause" for accidents or damage.
   - Experience of opposite positions were present as well → Passenger alarmed that a bison got hit by a car → bison emergency service.
   - The only group that is against the bison is farmers → They don't care about the bison and spread false information or videos of bisons doing damage.
   - Issues: Information provided by press may be very misleading:
     - Situation with wolves ("wolve attack") → many people only read the heading
     - Another problem is the lack of corrections in the articles → number of readers is relevant and not the content.
     - Another issue is when farmers ask for compensation → they tend to complain about the conservation plans of the regional directorate → these plans need to go through public consultations → farmers are in general trying to avoid these plans → "keep the endangered

species on a safe level" → they only give "recommendations"; it still means that these are against the bison measures.

- Scale of the problems like damage in crops and traffic accidents is really minor → not a lot happening, many incidents are not even real accidents but rather dangerous situations.
- Informing and communicating it with the public is key → always necessary before planning conservation measures → always two sides:
  - Fake news and media need to be carefully considered and fought against.
  - Providing valid information for the public is highly necessary.

6. **Is the general function of the Flagship species given → e.g. more value of the local nature and the conservation efforts is perceived by the local public?**
   - Cooperation with the cultural centre → educational programs using the bison as trademarks are existing and successful but their intentional focus lies rather on nature conservation in general than on the bison itself → This works really well and will be pursued in the future.
   - Perception of the values of nature? → definitely there is a big change in the attitude of local inhabitants towards the lynx and bisons (they call them "our bisons and our lynx") → the change is also measurable → there was public opinion studies conducted → there is a significant positive change towards increased knowledge about the species and also an increase in "warm" feelings.
   - From nature guidance point of view it is obvious how rich and diverse the neighbourhood is → sometimes local people don't even see that because it so "normal" → they now see externals and foreigners coming which makes the beautiful nature more visible for them.
7. **Fake News → Ideas in other countries transforming animals or landscapes into legal persons → this helps with conservation → are there any similar ideas or law changes in Poland?**
   - ROD will try to give the Oder the status of a legal person.
   - In Poland from the legal point of view it is impossible → no legal framework to give that legal status to an entity like bisons etc. → Poland is at a different stage → there are more basic problems, pragmatic issues → lack of connectivity and major political issues.
   - Example from Magda (Western Pomeranian Nature society) → Bisons should be on the same legal status as a private person→ usually humans are not harmed by a car accident → bisons needs legal protection.
   - Regional nature conservation authority → it does not make sense to make new legal positions for animals → the problem is mainly the prosecution of the law. The police have the duty to prosecute → often they see incidents in the nature as minor incidents that are not too relevant.

6. Evaluation of the Action

6.1. Assessment of procedures

Availability of documentation
All documents necessary for the peer review were available → good presentation about the collars, monitoring, application etc.

Preparation and implementation of restoration measures
The measures were technically very well prepared. The collars used for telemetry monitoring went through various difficulties until finally the best way of fixing them was found so that they would last as long as possible.
Stakeholder involvement
All relevant stakeholders (local communities, municipalities, authorities, landowners, NGOs…) were informed in detail about the project from the beginning. They were involved in its preparation and implementation.
Communication with general public
General public is informed about the implemented conservation measures by: https://gajanet.pl/projekty/reco-restoring-degraded-eco-systems-along-the-green-belt-to-improve-and-enhance-biodiversity-and-ecological-connectivity-reco-przywracanie-zdegradowanych-ekosystemow-wzdluz-zielon/ https://gajanet.pl/aktualnosci/wizyta-partnerow-projektu-reco-w-regionie-pilotazowym-pojezierze-inskie/ https://gajanet.pl/aktualnosci/zaproszenie-na-spotkanie-reco-3/ https://gajanet.pl/aktualnosci/obroze-dla-zubrow/ https://gajanet.pl/aktualnosci/10-rocznica-powstania-dzikiej-zagrody-w-jablonowie/ https://gajanet.pl/aktualnosci/zaproszenie-na-spotkanie-reco-2/ https://gajanet.pl/aktualnosci/zaproszenie-na-spotkanie-reco/ https://gajanet.pl/aktualnosci/kolejny-postrzelony-zubr/ https://gajanet.pl/aktualnosci/kolejna-publikacja-w-ramach-projektu-reco/ https://gajanet.pl/aktualnosci/wsparcie-naturalnych-migracji-zubra-europejskiego-na-pomorzy-zachodnim-w-polsce/ https://gajanet.pl/aktualnosci/pierwszy-cielak-zubra-w-lasach-pod-gorzowem/ http://dzika-zagroda.pl/ https://ztp.home.pl/autoinstalator/wordpress/?page_id=170 https://bisonlife13.zubry.org/ https://www.facebook.com/dzika.zagroda.jablonowo/?locale=pl_PL
Sustainability, continuation
▪ Potential for good public opinion is increasing → the project seems to be secure; actions will be continued. ▪ Funding capabilities are secure BUT: The costs are high and will stay high as monitoring will not stop soon. ▪ 18 months of collar data was promised (it is expected to collect data 5 years, as the collars live way longer). ▪ Monitoring data is very sustainable → planning of road constructions (GAIA was asked to provide data for new green bridges.

▪ Emergency service will stay longer. Data will be useful much longer and increase capabilities to receive funding for other projects.
Replication and dissemination
The GPS-collaring approach can be replicated in other regions where European bison populations are reintroduced or managed, particularly in areas with significant human-wildlife interactions. Suitable locations include other parts of Poland, Germany, the Baltic states, and Central and Eastern Europe, where migration corridors are fragmented due to infrastructure expansion. This method could also be adapted for other large herbivore species facing similar conservation challenges, such as red deer or wild horses, in landscapes requiring habitat restoration and improved connectivity.

6.2. Environmental impact

Assess the (anticipated) impact of the implemented measures on the target species/habitats
The European bison conservation efforts in Northwest Poland have been marked by a focus on multiple key strategies. Initiatives include promoting population growth through careful breeding programs and habitat management, with a specific emphasis on initiating natural herd diversification. Ensuring free gene flow between herds has been prioritized to maintain high genetic diversity, contributing to the species' greater resistance to environmental variability. Simultaneously, there has been a concerted effort to increase social acceptance of conservation measures, fostering a positive attitude towards the restitution of the European bison in the region. This comprehensive approach is complemented by effective anti-poaching measures, aiming at the reduction of illegal activities that pose a threat to the bison population. Together, these conservation endeavours underscore the commitment to preserving the European bison and its ecosystem in Northwest Poland.
How does the Action contribute to the ecological connectivity along the EGB?
By restoring migration corridors and improving habitat connectivity, this project directly contributes to the ecological integrity of the European Green Belt. Enhanced gene flow among bison populations strengthens biodiversity and increases resilience to environmental pressures. Additionally, the initiative promotes sustainable land use by integrating conservation objectives with infrastructure development and community needs. The involvement of local stakeholders fosters positive relationships between wildlife and human activities, reinforcing the Green Belt's role as a model for transboundary conservation.
How does the Action contribute to increasing biodiversity?
In the Ińsko Lakeland, the European bison functions as an umbrella species, meaning that its conservation indirectly supports a wide range of other species and overall ecosystem health. The protection of bison habitats in this region ensures the preservation of diverse landscapes, including forests, grasslands, and wetlands, which are home to many other wildlife species. Bison act as keystone herbivore, shaping the environment through grazing, trampling, and seed dispersal. Their presence helps maintain open woodlands and meadows, preventing overgrowth and promoting biodiversity by creating a mosaic of habitats beneficial for birds, insects, and plant species. Conservation measures aimed at enhancing migration routes and reducing habitat fragmentation in Ińsko Lakeland not only support the genetic diversity and stability of the bison population but also strengthen ecological connectivity for numerous other species. By protecting the European bison in this region, broader ecosystem restoration and biodiversity conservation goals are achieved, making it a vital species for the long-term ecological balance of northwestern Poland.
Does the Action take into account the climate change? Does it include adaptation measures?

The action is only very indirectly related to the issue of climate change. It attempts to contribute to the conservation of a species that is an emblematic animal of Central European natural forests. The measures used are not aimed at adaptation to a changing climate.
Has the Action any negative impact?
Action has no negative impact on nature. Its aim is to reduce the negative impacts associated with the existence of large herbivores on the economic interests of humans (farmers, foresters).

6.3. Socio-economic impact, policy

Assess the (anticipated) impact on the local community
- The action will help to minimise economic damage caused by wild animals. - The action will contribute to a better acceptance of bison by the local community, in which farmers play an important role . - The action will improve the permeability of the landscape not only for animals but also for people.
Assess the (anticipated) economic impact
- Jobs - the measure increases opportunities for employment as paid nature guides and for the development of ecotourism. - Tourism - The action has already increased the attractiveness of the region for tourists, especially for tourists seeking contact with the natural environment and therefore good acceptance of nature protection measures.
Policy issues
- One of the results of the action is recommendations for investment in transport infrastructure: a thorough analysis of the existing transport infrastructure in the region is carried out as part of the pilot investment. Based on the findings, detailed recommendations are made for strategic investments in transport networks that aim to balance the needs of human development with wildlife conservation and promote sustainable coexistence.

7. Summary of strengths and weaknesses and lessons learned

Main strengths, highlights
- Symbolic, emblematic species - Close cooperation with stakeholders - Comprehensive approach to the problem
Main weaknesses
- High personnel, economic and time requirements

Lessons learned
- When planning actions aimed at nature restoration, it is advantageous to focus on symbolic, emblematic species. - Close cooperation with stakeholders is crucial for good acceptance of actions. - The use of new technologies is necessary, but not always without problems.

8. Key messages

Recommendations for reviewed Action
The results of the Action and its overall direction should be presented not only at the Polish level, but certainly deserves it at the international level. In the next phases of action, it may be recommended to establish international cooperation (if this is not already happening), especially with countries where the natural distribution of the European bison population can be expected.
Recommendations for all project partners: transferable results
The presented action has the potential to increase biodiversity along the European Green Belt. It is aimed not only at the protection of the species itself, but also at ensuring the connectivity of the belt. Similar actions along the EGB can be recommended, with particular emphasis on international cooperation. Stakeholder involvement from the very beginning phase is crucial.
Policy messages
To ensure the long-term conservation of the **European bison** in **Ińsko Lakeland**, policy updates, strategic adjustments, and legal changes are necessary to address habitat connectivity, human-wildlife conflicts, and species management. A key priority is the **integration of ecological corridors and wildlife migration routes** into regional and national spatial planning policies. Infrastructure projects, such as roads and railways, should include mandatory **wildlife crossings, underpasses, and buffer zones** to prevent habitat fragmentation. Updates to land-use policies should designate **protected ecological corridors** to facilitate bison movement and genetic exchange between populations. To mitigate **human-bison conflicts**, adjustments to **compensation schemes** for farmers affected by bison-related crop damage should be expanded and streamlined. Introducing **financial incentives for landowners** who maintain bison-friendly landscapes, such as sustainable grazing and agroforestry practices, would further promote coexistence. Additionally, **regulated feeding programs** should be incorporated into conservation strategies to reduce bison encroachment on farmland while ensuring their natural foraging behaviour is maintained. Addressing the persistent **threat of poaching** requires **stronger legal protection and stricter enforcement measures**. Laws should introduce **higher penalties** for illegal hunting, improved monitoring through GPS tracking and surveillance technology, and enhanced cooperation between conservation authorities and law enforcement. The introduction of **community-based anti-poaching programs** could strengthen local engagement in bison conservation efforts. Sustainable **long-term funding mechanisms** must be incorporated into national and EU biodiversity strategies. Dedicated financial support for bison conservation through **EU funding programs, national**

environmental funds, and public-private partnerships should be secured to support habitat restoration, monitoring programs, and research initiatives.

Finally, bison conservation should be **fully integrated into Poland's national biodiversity strategy** and EU **Green Deal policies**. Legal frameworks should explicitly recognize the **European bison as a priority species**, ensuring its protection aligns with broader **habitat restoration, climate adaptation, and rewilding initiatives**. Cross-border cooperation with neighbouring countries should be strengthened to promote **transnational conservation strategies**, ensuring a **cohesive and scientifically driven approach** to bison population management across **Central and Eastern Europe**.

9. Photodocumentation

Presentation of action in the "Dzika Zagroda" - European bison and Eurasian lynx Conservation Breeding Centre

Meeting with stakeholders

From the visit to European bison and Eurasian lynx Conservation Breeding Centre

Visit to the Cultural Center in Mirosławiec - Regional Bison Center

Street art in Mirosławiec

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PILOT REGION 6 - THAYATAL, PODYJÍ

Content

1. Agenda and participants

Agenda (13/11/2024) - day 1

Time	Place	Agenda item
9.00 – 11.30	NP Thayatal National Park House	Presentation of Pilot actions Meeting with stakeholders
11.30 – 17.30	Zellendorf, Retz, Hardegg	Field visits of Austrian actions

Agenda (14/11/2024) - day 2

Time	Place	Agenda item
9.00 – 11.00	Lesná	Meeting with stakeholders – mayor of Lesná
11.00 – 12.00	Hnanice	Field visit of Czech Action Meeting with stakeholder

Participants

Name	Organisation, role in the Project	Role in the peer review
Hana Skokanová	Landscape Research Institute (PP9)	Peer review team - leader
Jörg Schmiedel	BUND (Bund Naturschutz in Bayern) (LP)	Peer review team
Ondřej Volf	Ametyst (PP4)	Peer review team
David Hubl	Ministry of Environment (PP12)	Peer review team
Manuela Londoño Jiménez	University of Vienna (PP8)	Peer review team
Marek Havlíček	Landscape Research Institute (PP9)	Peer review team
Julian Heider	Thayatal National Park (PP7)	Action implementation team
Tomáš Dvořák	Podyjí National Park (PP11)	Action implementation team
Zdeněk Mačát	Podyjí National Park (PP11)	Action implementation team
Andreas Kranz		Stakeholder – wild cat release
Gabriele Bassler-Binder		Stakeholder - dry grasslands management
Antonín Reiter	South Moravian Museum in Znojmo	Stakeholder – wetland restoration
Ivo Prchal	Lesná municipality	Stakeholder - mayor

2. Basic information about the visited Action

Name of the Action	Podyjí – revitalization of a small wetland and ponds
Implementation period	Not implemented yet, planned for second half of February 2025
Responsible Project partner	Podyjí National Park (PP11)
Total budget	Estimated 40.000 €
Location	Hnanice, 48.8027578N, 15.9760842E

Map

Target species/habitats

- Wetlands
- Salt marshes
- Small ponds
- Amphibians
- Dragonflies
- Wetland Grasshoppers
- Saltmarsh plants

Background

The pilot site is currently a degraded unmanaged wetland heavily overgrown with reed with low habitat quality.

Objectives

The main objective is to restore degraded wetland and create mosaics of different habitat types (three small ponds with shores of various steepness, wetland).

Expected results

- Habitat restoration.

• Created living space for amphibians, dragonflies, wetland orthopterans and plants. • Improved connectivity in a generally dry and heavily degraded agricultural landscape.
Measures implemented
We will use a heavy machinery to remove reed, dig out top layer of soil and create three small ponds of various depth.
Stage of implementation at the time of the peer review
Prepared. We have all necessary permits and documentation. We are just waiting for a right contractor selection.

Name of the Action	Thayatal – wild cat release
Implementation period	01.03.2024 – 31.12.2025
Responsible Project partner	Thayatal National Park (PP7)
Total budget	20.000 €
Location	Thayatal Nationalpark
Map	

Target species/habitats
European Wildcat
Background
Evidence of European Wildcat in the area, further research necessary. Release of radiotagged wildcat.
Objectives
Understanding migration patterns to improve connectivity in pilot area 6.
Expected results
Knowledge on migration patterns, knowledge and guideline for wildcat release in the future.
Measures implemented

External expert is commissioned with conducting a pilot study. Aims: Documenting the process to deliver a guidebook for releasing wildcat in the future, organising suitable wildcat individuals for release in Thayatal Nationalpark. Radiotagging and releasing the individuals. Monitoring their migration patterns for one season. Documenting the results and providing a guideline for further measures to enhance the population.
Stage of implementation at the time of the peer review
In Progress. Delayed in parts due to the fact that the first batch of suitable wildcat individuals escaped their enclosure before release so new individuals had to be organised.

Name of the Action	Thayatal – dry grasslands management
Implementation period	1.12.2023 – 31.3.2025
Responsible Project partner	Thayatal National Park (PP7)
Total budget	60.000 €
Location	Retz, different locations
Map	

Target species/habitats

- Habitat 8230: Siliceous rock with pioneer vegetation of the Sedo-Scleranthion (*Veronica dillenii, Sedum reflexum, Gagea bohemica, Scleranthus perennis, Rumex acetosella, Polytrichumpiliferum, Ceratodonpurpureus*) - *Veronica dillenii* (EN), *Myosotis stricta* (VU), *Gagea bohemica* (EN), *Scleranthus perennis* (VU-ENPA)
- Habitat 6240: Sub-Pannonicsteppicgrasslands (*Festuca valesiaca, Allium flavum, Iris pumila, Ranunculusillyricus, Teucrium chamaedrys, Potentilla arenaria, Iris humilis ssp. arenaria, Carexhumilis, Stipa capillata, S. joannis*)
- Habitat 4030: European dry heaths
- Habitat 40A0: Subcontinental peri-Pannonic scrub
- *Lacerta viridis* (Habitats Directive)

• *Saga pedo* (Habitats Directive) • *Colletes nasutus* • *Andrena potentillae*
Background
Historical Development: grazing with sheep (goats) until 1900. Endangerment: succession due to high grasses, organic litter; succession due to shrubs (*Rosa canina, R. subcanina, R.vosagiaca, Ligustrum vulgare, Crataegus monogyna*) and small shrubs (*R. pimpinellifolia, Prunus fruticosa*) and/or trees (*Robinia pseudoacacia, Pinus sylvestris, Populus tremula* etc.).
Objectives
Management of the small patches of dry meadows around Retz.
Expected results
Enhanced Biodiversity, open dry grasslands, reduced abundance of trees and shrubs.
Measures implemented
Management: removal of shrubs and trees by brushcutter and chainsaw as well as using small vehicles (Metrac). Removal of *Robinia pseudoacacia*: Removing of the bark (1st year uncomplete, 2nd year complete removal), Digging out. Removal of shrubs by grazing (*Prunus fruticosa* and *P. spinosa*) and combination of shrub-removal and grazing(Rosa sp., Robinia).
Stage of implementation at the time of the peer review
In progress

Name of the Action	Thayatal – woody strip planting
Implementation period	01.03.2024 – 30.04.2024
Responsible Project partner	Thayatal National Park (PP7)
Total budget	10.000 €
Location	Zellerndorf, 48.684509, 15.969789

Map

Target species/habitats
Woodlands of the type Kl. Querco-Fagetea
Background
The area surrounding Thayatal Nationalpark is vastly under pressure due to landuse changes in the last decades. Arable land was cleared from woodland to increase the area for growing crops. The formerly small-scale landscape with fields and many hedgerow elements was literally cleared out. To enhance connectivity for migrating species, stepping stone biotopes and corridors should be fostered.
Objectives
Planting trees and hedges to improve connectivity in the pilot area 6.
Expected results
Increase of wooded areas in agricultural landscapes. Planting of at least 300 trees.
Measures implemented
Together with municipality of Zellerndorf a suitable area was defined. More than 300 trees, fitting to the abiotic local conditions, were planted.
Stage of implementation at the time of the peer review
Completed.

3. Questionnaire for the Action implementation team

3.1. Pilot action 1 - Podyjí

3.1.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	Yes	We made the pre-action monitoring of chosen indicator groups: amphibians, dragonflies and grasshoppers.
Did you prepare a feasibility study?	No	Not needed, as the NP Podyjí already successfully executed similar restoration projects.
Did you identify any conflicts between different protection subjects?	Not applicable	The pilot action area is under the NP Podyjí administration.
Do you have a technical documentation or management plan?	Yes	Made by Jaromír Parolek.
Did you cooperate with external experts during the measures planning?	Yes	We consulted with experts on amphibians and water managers to achieve an optimal design of planned wetland and ponds. We cooperate namely with RNDr. Antonín Reiter, Ph.D who is an expert on amphibians and small water bodies restoration.
Did you face problems in obtaining the necessary permits and approvals?	No	
Did you face any legal barriers or conflicts with policies and official strategies?	No	
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	As relevant stakeholders we consider: mayor of Hnanice municipality Martin Dvořák, amphibian specialist Antonín Reiter and representatives of water managers.
Did you inform and/or involve them during the preparation phase?	Yes	The most beneficial were comments from Antonín Reiter, which helped us to design the ponds to be the most suitable for amphibians and other water life.
Did you face any conflicts with stakeholders during the preparation phase?	No	

Question	Y/N/ N/A	Comment
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	No	Our plans were announced on the NP's websites and Facebook but the largest part of communication with general public will take place after implementation completion.

3.1.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	Not applicable	The restoration is still in the process with expected completion till the end of February 2025.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	Not applicable	The restoration is still in the process, but we are aware that strong rain and resulting mud can interrupt work.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	Yes	Besides already mentioned external amphibian expert Antonín Reiter, the NP Podyjí administration has several internal experts who participate in the site monitoring.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	Not applicable	We don't expect any negative impact apart from a potential temporary worsening of water quality in the nearby stream during the creation of ponds.
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	We are steadily consulting with Antonín Reiter and also regularly inform the head of Hnanice municipality Martin Dvořák.
Have you faced any conflicts with stakeholders?	No	
Communication with general public		
Do you communicate with general public?	Yes	Through several communication channels as websites, Facebook, message board and field excursions (after action implementation).
Do you carry out public events?	Yes	We plan field excursions for schools and general public in the next summer after action implementation.

Question	Y/N/ N/A	Comment
Do you work with volunteers?	Not applicable	Volunteers' involvement is a common practice within the NP Podyjí, but no volunteers are involved in the pilot action specifically.

3.1.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	Yes	We will conduct long-term monitoring of the chosen indicator groups: amphibians, dragonflies and grasshoppers.
Do you / will you cooperate with external experts in the assessment?	No	Needed experts are available internally within National Park administration.
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	Yes	Results of action will be consulted with the amphibian expert Antonín Reiter.
Will you continue to communicate with general public?	Yes	Especially through field excursions and Facebook news.
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	First years after implementation, the wetland with ponds will undergo natural succession, but potential later management is not excluded.
Is any further financing necessary and have you assured it?	No	
Is it possible to replicate the measures in different locations?	Yes	Yes, wetlands restoration and small ponds creation are common conservative practices improving landscape connectivity and endangered habitat availability across the Czech Republic.
Do you have any replicability tools which can be shared?	Yes	The project documentation was made. In the future, photo documentation of the restoration process and results of long-term monitoring of the pilot action site will be also available.
Do you disseminate the project results?	Not applicable	The restoration is still in the process, so not yet.

3.1.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
We underestimated the length of the administration process coupled with the tender announcement for a contractor selection. Results of the action are not available yet.

3.2. Pilot action 2 - Thayatal - wildcat release

3.2.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	Yes	The situation on wildcats in Thayatal is constantly monitored.
Did you prepare a feasibility study?	Yes	Part of our contract with the expert is a feasibility study.
Did you identify any conflicts between different protection subjects?	No	No conflicts were identified.
Do you have a technical documentation or management plan?	Yes	The whole process of our pilot study is documented by the responsible expert Dr. Andreas Kranz.
Did you cooperate with external experts during the measures planning?	Yes	We were in contact to many different experts nation-wide.
Did you face problems in obtaining the necessary permits and approvals?	No	Different permits have to be obtained but so far everything worked out quite smoothly.
Did you face any legal barriers or conflicts with policies and official strategies?	No	There are no legal barriers for releasing wildcat in a National Park as long as you have all the permits.
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	Relevant stakeholders were identified in advance due to the fact, that the researchers of wildcat in Austria are quite connected .
Did you inform and/or involve them during the preparation phase?	Yes	Relevant stakeholders like hunters, researchers and local municipalities were informed about the pilot action plans.
Did you face any conflicts with stakeholders during the preparation phase?	No	No conflicts were identified.

Question	Y/N/ N/A	Comment
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	Yes	The general public is regularly informed about the ongoing projects in Thayatal National Park.

3.2.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	N/A	The release of wildcat is delayed due to a lack of suitable individuals.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	Yes	Unexpected conditions were faced regarding the availability of suitable wildcat individuals. The first individuals were provided by Wildpark Mautern but disappeared 2 weeks before release. After research new suitable individuals were found in South France with a planned release in spring 2025.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	Yes	An external expert is commissioned with conducting the study as well as documenting all the essential steps for releasing wildcats in Thayatal National Park as part of a pilot study.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	No	
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	Stakeholders are frequently involved in meetings and discussions.
Have you faced any conflicts with stakeholders?	Yes	Stakeholders are supportive.
Communication with general public		
Do you communicate with general public?	N/A	We communicate about wildcat in general, but we will communicate a success of releasing a wildcat only afterwards.
Do you carry out public events?	Yes	We frequently carry out public events.
Do you work with volunteers?	Yes	We have several volunteers who support our work.

3.2.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	Yes	It is planned to carry out monitoring surveys in future projects concerning wildcats and their release in the area.
Do you / will you cooperate with external experts in the assessment?	Yes	We cooperate with experts from the Platform-Wildcat in this matter.
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	Yes	Local stakeholders like hunters and the interested public are involved also after the implementation.
Will you continue to communicate with general public?	Yes	
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	A scientific report on the pilot study will ensure the sustainability of the outcomes for future decisions.
Is any further financing necessary and have you assured it?	Yes	Additional financing would be necessary, and we are trying to find ways on how to finance it right now.
Is it possible to replicate the measures in different locations?	Yes	Aim of the study is a scientific approach which can be replicated at any location.
Do you have any replicability tools which can be shared?	Yes	The detailed report.
Do you disseminate the project results?	Yes	Yes, on our social media, on public events as well as via reports and scientific exchange.

3.2.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
Working with living animals can be difficult in terms of sticking to a planned timetable.

3.3. Pilot action 3 - Thayatal - dry grasslands management

3.3.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	Yes	The managed area has been monitored for 20 years.
Did you prepare a feasibility study?	N/A	The feasibility is known to be given.
Did you identify any conflicts between different protection subjects?	N/A	No
Do you have a technical documentation or management plan?	Yes	Yes, all management is documented.
Did you cooperate with external experts during the measures planning?	Yes	An external expert was planning and is conducting the measures.
Did you face problems in obtaining the necessary permits and approvals?	No	
Did you face any legal barriers or conflicts with policies and official strategies?	No	The only legal barrier is that the expert has to be careful about double funding because she works on this area in different projects.
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	Relevant stakeholders were identified in advance .
Did you inform and/or involve them during the preparation phase?	Yes	The municipality of Retz as well as the Department of Nature Protection of Lower Austria as well as the expert were involved.
Did you face any conflicts with stakeholders during the preparation phase?	No	
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	Yes	We communicate our projects at different public events.

3.3.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	N/A	We were almost late, but we're on time.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	N/A	Some parts took longer than expected because of coordination of workers and weather conditions.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	Yes	An external expert, Dr. Gabriele Bassler, is conducting the measures.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	No	
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	Stakeholders are regularly involved by informational emails or talks as well as during official meetings.
Have you faced any conflicts with stakeholders?	No	
Communication with general public		
Do you communicate with general public?	Yes	Our projects and Pilot Actions are frequently communicated to the general public in public events, by our social media or by press articles.
Do you carry out public events?	Yes	Yes
Do you work with volunteers?	Yes	We are working with several volunteers at the moment.

3.3.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	Yes	Also in future the measures will be monitored.

Question	Y/N/ N/A	Comment
Do you / will you cooperate with external experts in the assessment?	Yes	Our external expert will stay in close contact to us about that matter.
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	Yes	The report is going to be communicated to the stakeholders.
Will you continue to communicate with general public?	Yes	
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	The management is part of bigger management plans to ensure the sustainability of the measures.
Is any further financing necessary and have you assured it?	No	At the moment, financing works fine. For ensuring the management in future, additional financing will be necessary.
Is it possible to replicate the measures in different locations?	Yes	Yes, the measures are documented and reported and are applicable to other locations as well.
Do you have any replicability tools which can be shared?	Yes	Reports and Documentation.
Do you disseminate the project results?	Yes	Yes, via social media, public events, press articles.

3.3.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
Good communication with stakeholders is key.

3.4. Pilot action 4 - Thayatal - woody strip planting

3.4.1. Initial and preparation phase

Question	Y/N/ N/A	Comment
Restoration planning and preparation		
Did you carry out the baseline survey during the restoration planning?	N/A	Baseline surveys have been carried out before. In a previous project, suitable spots for restoring connectivity in pilot area 6 were identified. Those findings were included in the planning of the measures.
Did you prepare a feasibility study?	N/A	For the actual planting of woody strips no study has been conducted.
Did you identify any conflicts between different protection subjects?	N/A	In the area where we planted the trees (Zellerndorf) you can also find breeding grounds of Northern Lapwing. This species is sensitive to wood cover and needs an open landscape for breeding. We consulted an ornithologist on this matter. Due to the fact, that the planting only effects a tiny part of the actual landscape, no negative effects on the local Northern Lapwing were prognosed.
Do you have a technical documentation or management plan?	Yes	We are working on a contract to secure the management of the woody strip by the municipality.
Did you cooperate with external experts during the measures planning?	Yes	An ornithologist was consulted.
Did you face problems in obtaining the necessary permits and approvals?	No	The area is owned by the municipality and has been forested in the past, Therefore, no problems in reforestation occurred.
Did you face any legal barriers or conflicts with policies and official strategies?	No	No legal barriers.
Stakeholder involvement (including the local community)		
Did you identify relevant stakeholders in advance?	Yes	We worked with the municipality of Zellerndorf as relevant stakeholder.
Did you inform and/or involve them during the preparation phase?	Yes	We worked with the municipality of Zellerndorf as relevant stakeholder.
Did you face any conflicts with stakeholders during the preparation phase?	No	No conflicts occurred.

Question	Y/N/ N/A	Comment
Communication and involvement general public		
Did you start communication with general public during the preparation phase?	Yes	General public is informed of our activities regularly by our social media, public events and/or press articles.

3.4.2. Implementation phase

Question	Y/N/ N/A	Comment
Restoration measures implementation		
Have you implemented the restoration as foreseen (so far)?	Yes	Implementation was conducted with a group of volunteers according to the plans.
Have you faced any unexpected conditions (e.g., extreme weather, different situation on the site than expected, lack of workers…)?	N/A	At the day of planting we experienced severe rain and cold.
Do you cooperate/have you cooperated with external experts during the measures implementation (e.g., continuous monitoring, scientific studies, etc.)?	Yes	We consulted an ornithologist concerning the effect of planting trees on breeding birds. We also have internal experience in restoration measures.
Have you noticed any negative impact of the restoration measures during their implementation on species, habitats, people, economic values…?	No	Possible negative impact was eradicated beforehand.
Stakeholder involvement (including the local community)		
Are you communicating with stakeholders and involving them in the Action's implementation?	Yes	We are dependent on the communication with local stakeholders to ensure the maintenance of the planted area on the long run.
Have you faced any conflicts with stakeholders?	No	
Communication with general public		
Do you communicate with general public?	Yes	We communicate via our social media, public events as well as press articles.
Do you carry out public events?	Yes	
Do you work with volunteers?	Yes	We have two volunteers who are in action for one year. Additionally, we have a Senior Ranger Team, elderly volunteers who support the National Park.

3.4.3. After-implementation phase

Question	Y/N/ N/A	Comment
Restoration evaluation		
Have you carried out / do you plan monitoring surveys to assess the impact?	Yes	The success will be monitored by the team of the National Park.
Do you / will you cooperate with external experts in the assessment?	No	
Stakeholder involvement (including the local community), communication with general public		
Are the stakeholders (going to be) involved in the after-implementation phase?	Yes	Regarding the maintenance of the area, a contract ensures the involvement of the municipality on the long term.
Will you continue to communicate with general public?	Yes	Yes, it is a main task of the National Park to communicate with the general public.
Sustainability, replicability		
Have you taken measures / do you have plans how to assure sustainability of the Action's results?	Yes	Via a contract with the landowners.
Is any further financing necessary and have you assured it?	No	No further financing is necessary.
Is it possible to replicate the measures in different locations?	Yes	Planting Trees to enhance connectivity can be done nearly everywhere.
Do you have any replicability tools which can be shared?	No	No special tools were used.
Do you disseminate the project results?	Yes	Yes, via social media, public events and press articles.

3.4.4. Recommendations, lessons learnt

Lessons learnt during the preparation and implementation of the Action and recommendations for restoration projects
You need good communication with municipalities, the hardest part is finding suitable areas with willing landowners.

4. Field visit

Action 1 - Podyjí - wetland restoration

– Since the realization of the action hasn't started yet, we visited another site where similar restoration activities were undertaken six years ago, and which can serve as an approximation how the implemented action could look like.

– The implementation in this locality seems to be very successful - still open water with only a little bit of reed, suitable and, according to the stakeholder and PP11, full of targeted species (amphibians) - due to the season they weren't visible.

Action 2 - Thayatal - wild cat release

– The release of the cat had to be postponed due to the lack of available individuals.

– We visited a place where wild cat should be released - it is its natural habitat and already some females have been captured by a camera installed at the site. It is planned for the wildcat to be collared to monitor its migration patterns. The system is being designed specifically for the needs of the wildcat research and aims to offer data on the individual´s movement.

– A shelter should be built at the visited site. However, it hasn't been done yet.

Action 3 - dry grassland management

– We visited several localities with the management of dry grassland near Retz - the management included grazing, cutting, digging and removing bark from Robinia and other shrubs.

– The grazing seems to be very effective and several protected species benefited from it.

– Cutting and digging Robinia is not so effective as it shoots underground sprouts, removing bark seems to be better but is valid only for older(younger?) individuals.

– Cutting other shrubs is somewhat effective if followed by grazing.

Action 4 - woodland strip planting

– About 300 trees were planted with the help of volunteers.

– Majority of them seem to have taken root and are in good condition, some damaged by wildlife.

– Trees planted in a treeless area → serve as a good stepping stone for forest species.

5. Meetings with stakeholders

Name	Andreas Kranz
Organisation/institution	N/A
Relation to the Action	Expert for wild cat release
Outcomes of the meeting	
— An expert on wild cat and a source of information about the species. — Directly involved in the action as a consultant on the behaviour of the wild cat. — Long-term cooperation with the Thayatal NP. — He is looking forward to get the data from the wild cat and learn more about its behaviour and movement in the Thayatal region. — He will definitely cooperate in the future and help with data analyses.	

Name	Gabriele Bassler-Binder
Organisation/institution	N/A
Relation to the Action	Expert for dry grassland management
Outcomes of the meeting	
— Botanist directly involved in the selection of sites as well as organizing management with local farmers, enterprises and volunteers. — Long-term cooperation with the Thayatal NP. — She believes that the measures will improve the targeted habitats and the action has positive impact on local inhabitants who can use the localities for recreation. — She perceives future cooperation positively.	

Name	Antonín Reiter
Organisation/institution	South Moravian Museum in Znojmo
Relation to the Action	Expert for wetland restoration
Outcomes of the meeting	
— Expert on amphibians directly involved in the restoration measure proposal. — Long-term cooperation with the Podyjí NP. — He believes that the measures will improve the targeted habitats and species. — He perceives future cooperation positively.	

Name	Ivo Prchal
Organisation/institution	Municipality of Lesná village

Relation to the Action	No direct relation to the proposed actions but long-term cooperation with the Podyjí NP
Outcomes of the meeting	
– Introduction of several activities for improving the environment of the village, such as restoration of greenery inside and outside of the village, restoration of field paths with accompanying trees, water management in the village (better water retention), decrease of waste disposal, environmental education in kindergarten. – Close cooperation with NP Podyjí regarding the restoration of greenery – planting local trees, protecting habitats for bats, etc. – He perceives future cooperation positively.	

6. Evaluation of the Action

6.1. Assessment of procedures

Availability of documentation
The actions were introduced and discussed in detail before the field trips, necessary information and documentation available.
Preparation and implementation of restoration measures
High level of detail and professionalism, which was ensured by direct involvement of experts from affected fields (a wild cat expert, a botanist, an amphibian expert).
Stakeholder involvement
Communication and involvement of stakeholders are appropriate. Several experts have been included from the start of the action's preparation through implementation; furthermore, the actions have been implemented either on the request of the land owners (e.g. action 4 – woody strip planting) or with their agreement (e.g. action 3 – dry grassland management; action 2 – wild cat release).
Communication with general public
Communication with general public is appropriate. The general public was regularly updated by websites and social media, also some information panels were created for some localities where the measures took place.
Sustainability, continuation
All implemented activities seem to be sustainable in the long term provided enough financial means for their management and monitoring – these are based on subsidies and future programmes for land management and monitoring (maybe CAP, national funding, etc.). Personnel for the management: - in case of dry grassland management there seem to be enough farmers willing to do so but not always in/around targeted localities; - in case of woody strip, the municipality who requested the planting has personnel for it;

- in case of wetland restoration, based on the already carried out restorations of other localities, the management does not need to be intense/can start in later years (6 or even later) and the personnel of the NP Podyjí can do it; - in case of wild cat, the personnel for monitoring will be provided by interested experts; a scientific report as an outcome will ensure informed future decisions regarding wild cat, its spread and potential repeated release.
Replication and dissemination
– There seems to be high replication potential for all assessed actions regarding habitats restoration with high success of replication; habitat restoration activities have been successfully tried in other localities in the region. – As for the wild cat release, it is a unique pilot action not yet tried elsewhere, especially with the type of collar. If successful, the replication is also feasible.

6.2. Environmental impact

Assess the (anticipated) impact of the implemented measures on the target species/habitats
– Majority of the actions were completed successfully and with good potential for sustainability. – Regarding the expected enhancing of biodiversity, at the moment, it is difficult to assess but there are already some signs of positive outcomes from similar examples from different projects in the pilot region (e.g. increase in the amphibian population and other wetland species, increase in dry grassland species). – Some expected results were achieved completely (e.g. increasing the area of woody cover) or significantly (e.g. decreasing the number of woody species in dry grasslands).
How does the Action contribute to the ecological connectivity along the EGB?
– Habitat measures (grasslands, woody strip, wetland) create stepping stones for respective habitats in the region, leading to the increase of ecological connectivity and bigger movement of different species.
How does the Action contribute to increasing biodiversity?
– Restoration of habitats will contribute to increasing biodiversity by providing more space for organisms as well as better/improved conditions.
Does the Action take into account the climate change? Does it include adaptation measures?
– Implementation of the measures will increase overall landscape resilience to climate change. – Wetland restoration directly encompasses climate change since it includes two periodical wetlands, which are more likely to be preserved than permanent water bodies (even shallow ones)
Has the Action any negative impact?
– We don't see any negative impact on the environment in the long term. – In the short term, there might be some pollution during the implementation of some actions (e.g. building a pond during wetland restoration can cause a temporary worsening of water quality in the nearby stream)

6.3. Socio-economic impact, policy

Assess the (anticipated) impact on the local community
– The measures should not impact land available for local communities, on the contrary, they can improve the environment and can provide more opportunities for e.g. recreation. – The measures focusing on habitat restoration can improve relationship of local communities to nature and nature conservation by providing them with enhanced ecosystem services, such as more opportunities for recreation, higher water retention and better quality, improving local climate conditions or preventing soil erosion. – The measures focusing on wild cat can help in increasing genetic variability and indirectly can help improve the habitat of the wild cat. In addition, the tracking data that is planned to be collected, will offer a relevant base for further research on the wildcat behaviour and movement patterns. At the same time the routes can offer a baseline for plans for connectivity by showing migration corridors. – The measures focusing on habitat restoration will increase landscape resilience against climate change.
Assess the (anticipated) economic impact
– The measures focusing on habitat restoration can provide additional job opportunities, which is true especially in the dry meadows management but also the planting of the woody strip. These two measures can also provide direct income as pastures and wood source. – The measures will need CAP and other subsidies to be sustainable – this is true especially for the dry grassland management. – There seems to be positive impact on recreation, although mainly for the locals who can use the localities for their recreational activities. – Regarding the wild cat, more information about its behaviour can help in educating the public and maybe increasing tourism in the region.
Policy issues
– There seems to be lack of policy or strategy regarding better landscape permeability for animals on the Austrian side, especially along highways and railroads. On the Czech side, this issue is tackled within the spatial plans (by so called migration corridors – biotopes of special protected species), which could serve as an inspiration.

7. Summary of strengths and weaknesses and lessons learned

Main strengths, highlights
– involvement of the experts from the start/preparation phase through implementation – positive feedback from local communities – transferability of experience from the neighbouring countries
Main weaknesses
– insecurity in getting funds for the activities

Lessons learned
– for the action to be successful, it is necessary to include experts as well as local stakeholders

8. Key messages

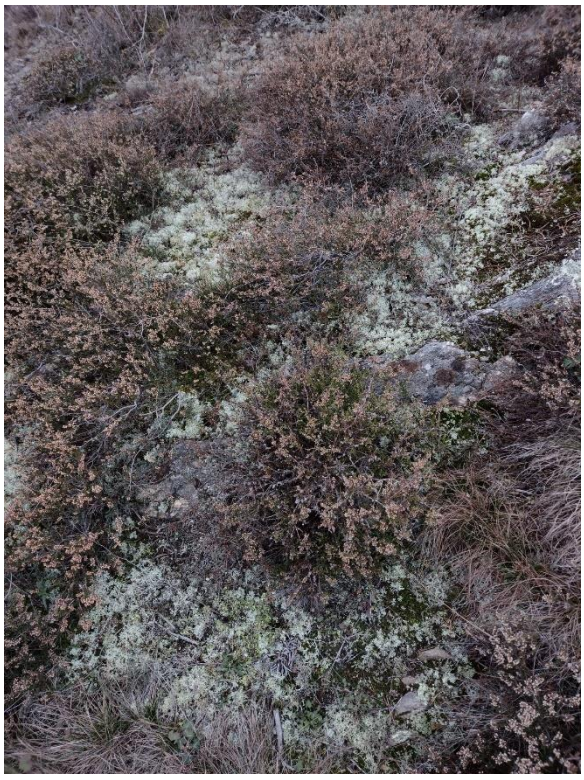
Recommendations for reviewed Action
– In case of wetland restoration (action 1) a measure in the form of planting trees/shrubs at the edge of field/vineyard was suggested in order to catch potential washout of chemicals from the vineyard. – Continue with regular field excursions for public, starting with kids/schools. – Managed burning of dry grasslands as a form of management – the result show positive effects.
Recommendations for all project partners: transferable results
– For the action to be successful, it is necessary to include experts as well as local stakeholders. – Exchange of experience among partners/practitioners from different countries.
Policy messages
– Changing legislation to allow other forms of management, e.g. managed burning. – Austria: Creation of a policy/strategy should be initiated to ensure protection and restoration of migration corridors for large mammals and ensure better landscape permeability.

9. Photodocumentation

1. Area planned for wildcat release

2. Visit with wildcat expert to the planned release area

3. Dry Grassland Vegetation with Sempervivum globiferum



4. Dry Grassland vegetation