DANUBEINSIDE

DANUBEparksCONNECTED – Bridging the Danube Protected Areas towards a Danube Habitat Corridor



Georg Frank DANUBEPARKS Project Manager

Countering the main threat to biodiversity in Europe: landscape fragmentation and isolation of Protected Areas

DANUBEPARKS – The Danube River Network of Protected Areas – preserves some of our most valuable natural sites. Yet habitat fragmentation limits

efforts to preserve a truly cohesive ecosystem. In recent decades, the dynamic economic development of Southeast Europe has put growing pressure on the natural treasures of the Danube. Urban sprawl, major new infrastructure projects in transportation and energy, and the increasing intensification of land use has led to less ecological connectivity. Together, the fragmentation of ecosystems and lack of connectivity among Protected Areas pose the greatest threat to biodiversity in Europe, and limit the effectiveness of existing conservation efforts in valuable natural sites.

The special relevance of river ecosystems as eco-corridors

While most may associate habitat connectivity as pertains to rivers with the longitudinal connectivity of aquatic habitats, rivers in fact serve an even greater purpose: as essential wildlife corridors, whose semiaquatic habitats like sand bars, gravel banks and islands are literal stepping stones. They are also flyways of extraordinary importance for the migration of waterfowl, geese, gulls, and birds of prey. Rivers even form ecological corridors for dry and semi-arid habitats. This sheer variety of habitats – which can only be formed by intact river systems – provides suitable living conditions for a wide range of organisms. This makes riverine habitats essential eco-corridors.

Strengthening the Danube Habitat Corridor on water (WILDisland), in the air (DANUBE FREE SKY) and on land (Forest and Dry Habitats)

be more important than ever in future in order to ensure adequate and functioning migration

To counteract this development, the EU Strategy for the Danube Region (EUSDR) Action Plan and other important policies have issued calls for action to restore and preserve habitat connectivity, and to strengthen Protected Areas in their function as key sites of the Danube Habitat Corridor. European initiatives like the Natura 2000 Network and the Green Infrastructure concept should bring about the establishment of trans-European green networks (TEN-G).

Danube Protected Areas' responsibility for ecological connectivity in Europe

Because the Danube links more separate ecological and bio-geographic regions than any other corridor in Europe, habitat connectivity and functioning riverine ecosystems that enable animal migration are especially pertinent issues. Counteracting the negative effects of long-term habitat displacement and climate change will corridors connecting the Black Sea, Steppic, Pannonian, Continental and Alpine regions.

Along with the Natura 2000 Network, the Danube Protected Areas represent the key areas, and form the backbone of this ecological corridor. However, because the amount of land designated as national conservation areas is still too small to serve self-sustaining wildlife populations, our main challenge – now and in future – will be to create and maintain habitat connectivity and contiguous ecosystems in order to ensure biodiversity in the centuries to come.





The Danube Bend in Duna-Ipoly National Park

EDITORIAL



Carl Manzano Donau-Auen National Park Director and DANUBEPARKS President In April 2007, Danube Protected Area managers from eight different countries met in Tulcea, the capital of the Danube Delta, and drafted the "Declaration of Tulcea," calling for the establishment of a Danube River Network of Protected Areas. Ten years later, DANUBEPARKS is a well-established association

now implementing its third major transnational Interreg project with 15 partners from nine Danube countries.

In our first project application, we wrote that there "is a real need for transnational cooperation among Protected Areas along the Danube"; ten years' experience have proved this to be true. Each Protected Area member has benefitted in terms of expertise, competence and finances, and has also gained recognition and importance in their respective countries through co-operative activities: sharing knowledge and experience; developing shared conservation strategies; engaging in common dialogue with other sectors likes navigation, energy and tourism; implementing numerous pilot projects and learning from them for future efforts.

All of us working in nature conservation on the Danube face similar problems and challenges. On a national level, we are committed to cooperation and exchange with other Protected Area administrations. Here, we share the same language and the same social and administrative framework, and sometimes even the same minister or financial funds. But within DANUBEPARKS, we share the same ecosystem. In a sense, this is more real and essential than the national frontiers created by a series of historic accidents.

The enlargement of the EU has also given rise to a common legal and administrative framework for most of the Danube countries. EU directives such as the Habitats Directive, or the Water Framework Directive, are also being applied by non-EU members. There are Danubewide European infrastructure strategies, and transnational funds such as Interreg's current Danube Transnational Programme. These funds were and remain essential for the establishment of the network.

"Think globally, act locally": while we must all master our domestic problems at home, it is clear that certain problems can only be solved on a much higher level. At the same time, the EU level has often proven to be too big, and too diverse, to bring about good solutions. This dilemma gave rise to the concept of "macro-regions" such as the Alpine, Baltic and the Danube. And for ten years, DANUBEPARKS has been operating on a macro-regional level. So it is neither by accident nor chance that DANUBEPARKS was, and still is, one of the first flagship projects of the new European Danube Region Strategy.

DANUBEparksCONNECTED

Bridging the Danube Protected Areas towards a Danube Habitat Corridor

DANUBEparksCONNECTED has initiated the DANUBE HABITAT CORRIDOR campaign to counteract fragmentation. It offers Danube-wide strategies and exemplary pilot actions aiming to restore and maintain connectivity in all habitat elements – on water, land and in the air.

 Project Start:
 01-01-2017

 Project End:
 30-06-2019

 Overall Budget:
 € 3,085,412.49

 ERDF Contribution:
 € 2,487,762.45

 IPA Contribution:
 € 134,838.13

 ENI Contribution:
 0

 Priority: Environment and culture responsible

 Danube region

 Specific objective: Foster the restoration and management of ecological corridors

Project Partners:

Donau-Auen National Park, Austria (Lead Partner) Neuburg-Schrobenhausen District Administration, Germany

City of Ingolstadt, Germany Passau District, Germany World Heritage Municipalities Wachau, Austria State Nature Conservancy of the Slovak Republic, Slovakia BROZ - Regional Association for Nature Conservation and Sustainable Development, Slovakia Fertö-Hánsag National Park Directorate, Hungary Duna-Ipoly National Park Directorate, Hungary

Duna-Dráva National Park Directorate, Hungary Public Institution Nature Park Kopački rit, Croatia Persina Nature Park Directorate, Bulgaria Club Friends of Public Park Rusenski Lom, Bulgaria Danube Delta Biosphere Reserve Authority, Romania

Public Enterprise Vojvodinašume, Serbia Lower Prut Nature Reserve - Agency Moldsilva, Moldova



Associated Strategic Partners: Bavarian State Ministry (Germany; hosting EUSDR PA6) Ministry of Environment and Nature Protection (Croatia; hosting EUSDR PA6) ICPDR (Austria) Viadonau (Austria) Alparc (Alpine Network of Protected Areas) (France) WWF Danube Carpathian Programme (Bulgaria) European Wilderness Society (Ukraine) MAVIR (Hungary) ENEL Distribution Dobrogea S.A. (Romania)

More information: www.interreg-danube.eu/ danubeparksconnected www.danubeparks.org



THE DANUBE TRANSNATIONAL PROGRAMME

The Danube Transnational Programme (DTP) is a financing instrument of the European Territorial Cooperation (ETC), better known as Interreg. The DTP promotes economic, social and territorial cohesion in the Danube Region through policy integration in selected fields. It finances projects for the development and practical implementation of policy frameworks, tools and services and concrete small-scale pilot investments. Strong complementarities with the broader EU Strategy for the Danube Region (EUSDR) are sought.

The cooperation programme is structured across four priority axes:

- 1. Innovative and socially responsible
- 2. Environment and culture responsible
- Danube region



The total programme budget is 262 989 839 million euros, including the EU support (\in 221 924 597) and the national counterpart (\in 41 065 242).

EU support comes from three different funds:

- European Regional Development Fund (ERDF) (€ 202 095 405)
- Instrument for Pre-Accession Assistance II (IPA II) (€ 19 829 192)
- European Neighbourhood Instrument (ENI) (tbd) Selected projects are financed up to 85% of their costs.

Care May

3. Better connected and energy-responsible Danube region

4. Well-governed Danube region

Imprint

Donau-Auen National Park

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Photos: Baumgartner, Broz, DDBRA, Dolecek, Domazetovic, Frank, Gális, Hohla, Hoyer, Ivanov,

For more information: www.interreg-danube.eu

Kern, Kotz, Kovacs, MA49Bm, Manzano, Mészáros, Muilerman, Munteanu, Nill, Peltomäki, Obernzell, Petrescu, Popp, Roland, Steiner, TIPIK, Tubić, viadonau, Wagner

Proofreading: weinrichworld

Layout: Michael Kalb, www.michaelkalb.at Printed by Márk Pinczehelyi, Print run of 5,000. © Juni 2017. Produced using environmentallyfriendly technologies and materials. Errors and omissions excepted.



PROJECT CO-FUNDED BY THE EUROPEAN UNION (ERDF, IPA FUNDS)

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LAND CORRIDOR – DRY HABITAT

With focus on better conservation and wise management of dry habitats, this initiative covers the eco-corridor of dry and semi-arid habitats along the Danube Habitat Corridor, with spectacular cliffs, rock fields, semi-arid grasslands, and xeric habitats.

Implementation lead: Passau District Administration (Germany)

As the nature conservation expert at the Passau district administrative authorities, Christiane Kotz is in charge of implementing the Danube Dry Habitat Corridor initiative. The Passau district has been active in nature conservation for many years, establishing the Protected Area of Donauleiten Passau bis Jochenstein. The district also has a strong emphasis on



environmental education; to this end, it built a dedicated environmental education centre, "Haus am Strom," as far back as 16 years ago in Jochenstein.

Christiane Kotz is eager to exchange know-how and experience with other Protected Areas: "I am especially looking forward to working with the Danube Canyons to learn more about management plans in other areas, and to evaluate opportunities for deeper cooperation on educational progammes."

Christiane Kotz Nature Conservation Expert, Passau District

Administration

Danube Dry Habitat Corridor

Activities:

- Development of a Danube Dry Habitat Corridor strategy
- Creation of a Danube-wide map of dry habitats with orchids as flagship species
- Establishment of a DANUBEPARKS Canyons Network for experience exchange and demonstration of bestpractice management
- Cycling the Dyke and cross-border grazing on dykes: linking habitats for flood protection infrastructure and Green Infrastructure
- 1st Danube Volunteers Day to promote dry habitats

Danube Canyons are home to flagship orchid species Cross-border grazing supports habitat connectivity

LAND CORRIDOR – FOREST

Nearly 90% of riparian zones have disappeared in past decades. DANUBEparksCONNECTED and forestry experts are working together to raise awareness of the importance of riparian forest conservation.

Implementation lead: Public Forest Enterprise Vojvodinašume (Serbia)



The Vojvodina region in Northern Serbia is a mostly flat agricultural area of over Fitness Check. "The intensive farming and urban sprawl that began in the 19th century has led to marked fragmentation of Vojvodina's forests," explains Tubić. "But this situation is, unfortunately, characteristic of many sites along the Danube. Fragmentation leads to the loss of connectivity of riparian landscapes, which in turn endangers biodiversity." In order to restore the fragmented forest landscape, Tubić and his team are working to develop genetic linkages between organisms. Using EO observation data, they have been able to map forests and forest types. "We are now using this information to lay out corridors that can connect larger, more fully-preserved core areas," he says.

Riparian Forest Corridor

Activities:

- Riparian Forest Fitness Check to test viability of riparian forests as ecocorridor from the Black Sea to the Black Forest
- Gap analyses to identify bottlenecks in the Danube riparian forest corridor
- Development of concrete actions to improve the status quo
- Reforestation and the conversion of plantations into native stands
- Bat survey on the Upper, Middle and Lower Danube to validate results of the Riparian Forest Fitness Check

2,150,000 ha, of which around 7.1% is forested. Vojvodinašume is the national public authority managing the majority of the region's forests and forest lands, half of which are Protected Areas.

Bojan Tubić Forest Management Planning Officer, Public Forest Enterprise Vojvodinašume

Vojvodinašume uses data from Earth observation (EO) satellites and other sources to manage the sustainability of the region's 130,000 ha of forest. As an expert in interpreting and analysing EO data, Bojan Tubić heads the Danube-wide process of data collection for the Riparian Forest

> Fitness Check of the Danube Riparian Forest Corridor, and bat survey to demonstrate its value





WATER CORRIDOR – WILDisland

The wild Danube Islands are not only beautiful: they are essential for nature conservation and biodiversity. The WILDisland initiative launched by DANUBEparksCONNECTED will ensure that these islands remain integral ecological stepping stones in the riverine corridor.

Implementation lead: Danube Iploy National Park Directorate (Hungary)



trails.

The Duna-Ipoly National Park Directorate oversees nature protection in four counties around Budapest. Its main tasks include developing and

management," he stresses. He explains that while the Danube Islands are key flagship habitats for the Danube Habitat Corridor, there are other valuable habitats outside the existing Protected Areas where inland navigation takes place. "This means that cooperation with the navigation sector is extremely important to ensure the success of the project." The planned joint meetings and workshops will facilitate knowledge and experience exchange from national and international projects. "While we all need to learn more about the other's expectations and needs, our aim is to show just how important nature conservation is, for all stakeholders."

As valuable breeding sites for DANUBEPARKS flagship species like the Little Ringed Plover, the Danube Islands are being preserved through cooperation with waterway administrations

WILDisland, towards a Danube Wild Island **Habitat Corridor**

Activities:

- Cross-sector cooperation with waterway administration: Danube STREAM, a strategic partner project of the Danube Transnational Programme
- Development of guiding principles



Balázs Tóth Hydroecological expert, Duna-Ipoly National Park Directorate

implementing management plans for the Protected Areas, providing expertise to conservation authorities, imparting information to the public at its educational and visitors centres, and maintaining several nature

Balász Tóth, the hydroecological expert at Duna-Ipoly National Park, is in charge of implementing the initiative. "A top priority is to ensure the natural development of WILDislands in the long term by way of non-intervention

Early steps include identifying specific spots along the Danube where cooperation can be tested and pilot restoration projects can be implemented on selected islands.

for WILDisland

- Implementation of the Danube Wild Island Habitat Corridor by bringing together Protected Areas, land users, NGOs, stakeholders and policymakers
- Labelling WILDislands, to ensure preservation in the long term
- Creation of online WILDisland database for reference and research in the long term
- 2nd Danube Volunteers Day to promote the WILDisland initiative



DANUBE STREAM: SMART, INTEGRATED AND HARMONIZED WATERWAY MANAGEMENT Danube Transnational Pr

While the DANUBEparksCONNECTED project promotes the ongoing development of the Danube as an eco-corridor, the Danube waterway administration develops ecologically sound waterway maintenance work within the Danube STREAM project. Close cooperation is essential to ensure smooth implementation of both projects.

Why is cooperation important for both projects? And how does viadonau benefit from its involvement with DANUBEparksCONNECTED?

First of all, only when Danube STREAM and DANUBEparksCONNECTED join forces can we bring all the relevant stakeholders to the table. This is essential because cooperation can only thrive if relationships built on mutual understanding are established and maintained. This is what creates genuinely robust networks. For viadonau, the value added of cooperation is being able to define generally accepted





Interview with Gert-Jan Muilerman Project Manager Danube STREAM, viadonau

good practices and standards in the field of environmentally sustainable waterway management.

What are the greatest challenges to

environmental interests. As waterway operators, Danube, while environmental organisations aim







The strategy of the waterway management organisation for which I have been working the last 15 years, viadonau, consists of three main pillars: navigation, environment, and flood protection. Each element is treated with equal importance. No single interest may overrule any of the others. I am confident that this kind of integrated approach to waterway management is the only way forward.

As a Priority Area Coordinator (PAC) for the waterways mobility "1a" area in the EU Strategy for the Danube Region (EUSDR), how would you assess the importance of both projects from a Danube-wide perspective?

Our main objective as a PAC 1a is to improve the framework conditions for Danube navigation. Yet the underlying foundation of our work is the recognition that the Danube is a natural and living force which no party may claim for themselves. The varying interests and requirements must be heeded fairly. And this is where the importance of the integrated approach of Danube STREAM and DANUBEparksCONNECTED becomes apparent: our cooperation engages stakeholders early, maintains interdisciplinary dialogue, avoids possible conflicts, and identifies best practices. We think these are the best ingredients for success.

Which specific results do you expect to validate the value-added of these projects and also ensure future collaboration among Danube organisations?

I will be satisfied if we have been able to come up with generally accepted standards for environmentally sustainable waterway management. This would ultimately provide the basis for specific projects that fulfil both aims: good navigational status and good ecological status.

www.interreg-danube.eu/danubestream



The White-tailed eagle and the Dalmatian pelican are flagship species for the DANUBE FREE SKY campaign, which aims to reduce the number of collisions with power lines

AIR CORRIDOR – DANUBE FREE SKY

The Danube is a flyway of great importance for a variety of birds, yet millions perish each year after colliding with power lines. A DANUBEparksCONNECTED initiative will promote technical solutions which can significantly reduce mortality and create a DANUBE FREE SKY for all migrating birds.

Implementation lead: Danube Delta Biosphere Reserve Authority (Romania)

A public institution coordinated by the Romanian Ministry of Environment, the Danube Delta The Danube is a vital breeding, resting and wintering spot for birds and a flyway of particular importance for waterfowl, terns, gulls, waders, raptors and many other avian species. Even though the Protected Areas provide refuge on this migration route, overhead electrical power lines along the corridor are dangerous barriers, and millions of birds perish each year after colliding with them. "Numerous studies have shown that by using the right techniques, collision risk can be reduced from 60% to 90%."

Lessons learned from the LIFE project will now be applied to Danube Free Sky, which was kicked off in February 2017 at a DANUBEparksCONNECTED conference attended by most Danube countries. Importantly, intense dialogue with representatives from the energy industry has also begun.

DANUBE FREE SKY – save migration for birds

Activities:

Natural Heritage Department Head, Danube Delta Biosphere Reserve Authority

Biosphere Reserve Authority (DDBRA) manages the Romanian section of the Danube Delta, one of the greatest wetlands on earth. The only delta in the world to have been declared in its entirety



wetlands on earth. The only delta have been declared in its entirety a biosphere reserve, it has been internationally recognised by UNESCO MAB and World Heritage, Ramsar Site, NATURA 2000, and others. Expert Ion Munteanu is now coordinating the Danube Free Sky initiative, a project aimed at reducing the mortality rate due to collision. Munteanu will employ the successful and innovative technologies used in the course of an earlier LIFE project, "Saving the Pelecanus crispus in the Danube Delta." Carried out from 2005 to 2009 by DDBRA and the Romanian Ornithological Society, its main objective was to protect and increase the breeding population of the Dalmatian pelican. Another specific objective was to mark power lines in order to reduce the collision mortality rate. As Munteanu explains,

- Development of DANUBE FREE SKY strategy
- Cooperation with energy sector: development of best-practice approach for marking of power lines
- Inventory of power lines along the Danube
- Implementation of pilot actions such as marking of power lines
- Awareness-raising efforts
- Cross-sector conference to present DANUBE FREE SKY results



PROJECT LIFE ENERGY LIFE Cenergy

The DANUBE FREE SKY initiative aims to develop Danube-wide strategies to reduce the risk of fatal collisions between birds and power lines. Lucia Deutschova of Raptor Protection of Slovakia, and "LIFE Energy" project manager, shares the results of recent efforts which offer important lessons on how to lower collision mortality rates on the Danube flyway.



Tell us more about the NGO "Raptor Protection of Slovakia." What is the aim of your organisation?

As the name implies, our mission is to protect birds of prey and owls. For over 40 years, our passionate and

Interview with Lucia Deutschová Executive Director and Project Manager of the LIFE Energy project

dedicated specialists have worked to protect these beautiful birds and conserve their natural habitats.

What have you learned about the impact of power lines on birds?

Since the very beginning, one of our focus topics has been the interaction between birds and power lines. In Slovakia, there are around 35,000 km of power lines in various forms, and as in every country, power lines have a range of negative impacts on various bird species. The problem of electrocution was first identified in the 1990s. Since then, several solutions to prevent electrocution have been tested in Slovakia with the participation of power line operators, who have cooperated extensively with us. Together, we have studied different aspects of this problem, developed and tested different solutions, and implemented them in the field. Bird collisions with overhead power lines pose a serious threat to many species, including endangered ones, and we need to carry out further systematic, long-term studies and evaluate these carefully to learn more.

Does any kind of hard data exist?

In the course of the "LIFE Energy" project carried out in Slovakia, we trained 81 field assistants who surveyed nearly 7,000 km of power lines in 13 Protected Areas. These field assistants walked over 30,000 km in 15 months! They recorded a total of 4364 bird carcasses including 86 different species. The main cause of death for the majority of birds was electrocution – around 77% – and collision, around 22%.

Despite the refuge provided by Danube Protected Areas, power lines still endanger bird life along the important Danube river flyway – yet measures can be taken to significantly reduce the risk

How can we protect birds?

Only 2.6% of the power lines we inspected pose the highest risk of collisions. As we speak, three power line operators are now installing so-called bird diverters on the most dangerous stretches of power lines. These stretches were selected on the basis of a special methodology in combination with our own field survey. Around 8,000 diverters will be installed over a length of 82 km. These measures will help protect over 600 birds and corresponds to a social value of 1.5 million from prevented collisions. As soon as installation has been completed, we will collect new data to determine the effect on collisions and thus mortality.

Naturschutzgebiet



NER LEADER OF LANDER



DANUBE INSIDE 2017



DANUBEPARKS network of protected areas

As the most international river in the world, the Danube passes through ten countries on its 2,857-km journey from the Black Forest to the Black Sea. Since 2007, 16 Protected Areas from nine Danube countries have been joined by their mission to protect biodiversity as DANUBEPARKS, the Danube River Network of Protected Areas. Together, shared challenges can be tackled systemically and effectively on a Danube-wide scale.

COMMUNICATION – BOOST FOR ECOLOGICAL CONNECTIVITY

DANUBEparksCONNECTED addresses ecological connectivity in the elements of soil, water and air, but fire also plays a role: by sparking enthusiasm and passion for nature conservation. Several upcoming events will get the fire going.

10 YEARS OF DANUBEPARKS – JUNE 2017

Ten years ago, in April 2007, Protected Area managers from eight Danube countries met in Tulcea and established the Danube River Network of Protected Areas. Today, DANUBEPARKS has 16 partners from nine Danube countries. In addition to workshops and celebrations, the DANUBEPARKS team will volunteer at Kopački rit Nature Park to promote the upcoming 1st Danube Volunteers Day taking place in each Danube Protected Area to promote dry habitat management.



1st DANUBE VOLUNTEERS DAY – SEPTEMBER 2017

The 1st Danube Volunteers Day is organised by each Danube Protected Area to promote and manage dry habitats in their respective regions. By working together in the field, volunteers gain a deeper understanding of nature conservation and learn more about the management of Protected Areas.

2nd DANUBE VOLUNTEERSDAY – APRIL 2018

The 2nd Danube Volunteers day is a coordinated, Danube-wide campaign to promote the Danube WILDisland initiative, with focus on waste Volunteers in action to conserve dry habitats Cleaning riverbanks to preserve the WILDisland habitat

The Danube flood

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collection and cleaning of dynamic river habitats like the WILDislands.

CYCLING THE DYKE – 2019

The Danube Protected Areas are home to precious dry habitats. To ensure their ecological connectivity, efforts are being made to develop a "greener" infrastructure along the Danube's flood protection barrier. This dyke forms a valuable corridor not only for flora and fauna, but for people, too. More and more local residents and visitors are using the EuroVelo 6 cycling route for recreation, and as a way to experience



prevention dyke connects people, plants and animals

the region. The Cycling the Dyke event starts upstream, moving downstream from one Protected Area to the next. It unites scientists, locals, tourists and other stakeholders in a fascinating and fun way to learn more about these special habitats.

