# ANUBEINSIDE The Danube WILDisland **Habitat Corridor** 3,000-kilometer stretch of river 912 islands 138,000 ha of dynamic island habitats 147 pristine natural islands 13,840 ha of wilderness

# LIFE WILDisland

# Jointly for the Danube WILDisland Habitat Corridor

Rivers and their riparian zones form the backbone of eco-corridors. This is especially true for the Danube, which links more biogeographic regions than any other natural object in Europe. The Danube is a hub of biodiversity and an essential lifeline for Europe. There is a clear commitment to preserving its natural heritage, with over 100 Natura 2000 protected sites of European significance on the Danube, and 230 along its course.

The Danube WILDisland Habitat Corridor comprises around 900 islands covering a surface area of over 138,000 ha. Around 385 of the islands may be characterized as being in a nearnatural state; 147 of them (14,000 ha) may be called pristine and characteristic of river wilder-

### **DANUBEPARKS** The Danube River Network of **Protected Areas**

The need to jointly preserve this unique natural heritage determined the establishment of the Danube River Network of Protected Areas (DANUBEPARKS). The Association comprises 21 national parks, biosphere reserves and nature parks from 9 Danube countries.

www.danubeparks.org

More than 70% of the LIFE WILDisland project budget (14,2 Mill. €) will be invested in specific conservation and restoration measures: the hydromorphological elements of over 48 km of water bodies will be improved; river dynamics and hydrological regimes will be restored on 915 ha; and around 352 ha of natural alluvial forests will be improved through transformation of hybrid poplar plantations, reforestation, and invasive species management.











The islands are not only beautiful to look at: they are vital components of an intact river ecosystem. As flagship habitats for river morphology and river dynamics, the conservation and restoration of riverine islands is essential. When their near-natural state is maintained, islands are often the only remaining sanctuaries for species which are characteristic of dyna-

Protecting near-natural islands helps strengthen habitat networks all along the Danube. Yet because the Danube is the world's most international river, only a transnational approach can be effective in restoring and maintaining habitat connectivity. The unique LIFE WILDisland initiative has been created to develop the necessary Green Infrastructure across national boundaries.

**Ecological corridors** are functinal zones of passage that link other, smaller natural zones and serve a group of species dependent on a single environment. The corridor thus connects different populations and allows for the migration of species among them. The need for ecological connectivity is becoming increasingly urgent due to the effects of climate change.





# The WILDisland initiative

# The journey from inventory to Danube-wide conservation

In 2011 and 2013, Danube-wide monitoring expeditions determined the outstanding value of the islands for sustaining biodiversity. A follow-up inventory of all islands in the Danube WILDisland Habitat Corridor – the first of its kind – was carried out within the Interreg DANUBEparks-CONNECTED project. It counted 900 islands with a total area of over 138,000 ha, of which 385 may be characterized as "near-natural", and 147 with an area of 14,000 ha which remain largely untouched by humans. Moreover, the islands host some of the most pristine and well-preserved stands of alluvial softwood forests, a habitat of European conservation concern.

Over time, most (90%) of the Danube floodplain forests have been given over to agriculture, infrastructure, or industry. The remaining forests continue to recede due to pressure from hydrological alterations, introduction of non-native tree species and changes in forest composi-

tion, fewer old-growth stands, removal of deadwood, and overall fragmentation. Islands often represent the last remnants of intact riverine habitats and natural wilderness in the heart of Europe.

The LIFE WILDisland initiative thus aims to:

- Strengthen ecological connectivity and preserve the natural wilderness
- Promote river dynamics and an intact sediment regime
- Demonstrate good practice for cross-sector and cross-border cooperation
- Identify, label and subsequently preserve the WILDislands and their natural heritage by garnering the necessary support from relevant policymakers, sectors, and land managers.

The WILDisland project was launched in 2021 in order to fully implement the Danube WILDisland Habitat Corridor.

# The LIFE funding instrument

**DANUBE INSIDE 2022** 

The LIFE programme is the EU's funding instrument for environmental and climate action. Its general objective is to contribute to the development, implementation, and up-dating of EU environmental and climate policy and legislation by co-financing projects with added value for Europe.

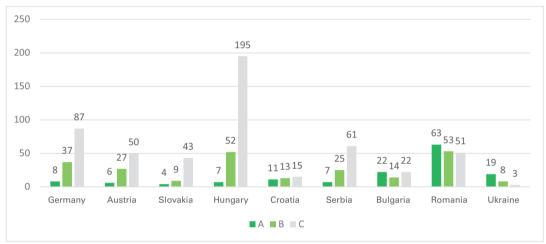
The LIFE Nature and Biodiversity sub-programme seeks to protect and restore nature in Europe and to halt or even reverse biodiversity loss. It supports projects that contribute to the implementation of the EU Birds and Habitats directives, and in particular the development and management of the Natura 2000 network. It also supports the objectives of the EU Biodiversity Strategy for 2030.

For more:

cinea.ec.europa.eu/life\_en



### Number of islands per country



Categories: A: most natural | B: valuable natural | C: human altered islands







uni per

Langau-Abwinden
The largest WILDisland restoration action

- · embankment removal
- · side-restoration, dredging

Responsible partner:

Verbund Verbund



**Schwalbeninsel** Initiating a WILDisland landscape

### **Actions:**

- · embankment removal
- · groyne adaptation

## Responsible partner:

viadonau,

Donau-Auen National Park

viadonau Donau Auen

SLOVAKIA

**AUSTRIA** 





Táti islands Improving habitat conditions of soft-wood riparian forests

· invasive tree species management

## Responsible partner:

Duna-Ipoly National Park Directorate





# Actions:

- · groyne opening
- · sidearm dredging

Responsible partner:

UNIPER

Responsible partner: ADUVIZIG, Duna-Dráva National Park Directorate



### **Debrina** island Island restoration on the borderline

## **Actions:**

- · natural forest rejuvenation
- · invasive species management

## Responsible partner:

Duna-Dráva National Park Directorate



**CROATIA** 





Forest restoration in the Special **Zoological Reserve** 

## Actions:

- · transformation of plantations
- · planting of native softwood forests

## Responsible partner:

Nature Park Kopački rit, Hrvatske šume





# **Project summary:**

- 15 project partners, 8 countries
- 14,2 Mill. € for island conservation and restoration
- Total number of islands restored: 34
- Total area improved (hydrology and forest management): 1,267 ha
- Total length of bodies re-dynamized: 48,192 m
- WILDisland Corridor established, coherent management for 147 "A" category islands (natural islands)



## Connecting for conservation

- · side arm reconnection
- · reforestation measures · Land purchase in SCI Kľúčovské luhy/ SCI Dunajské luhy

# Responsible partner:



# HUNGARY



Véneki islands Alien species management within strictly protected riparian forests

## Actions:

· invasive species management

## Responsible partner:

Fertő Hanság National Park Directorate





Kližská Nemá First ecological groyne adaptation in Slovakia

- groyne adaptation and dredging
- · natural forest rejuvenation
- · land purchase in SCI Dunajské luhy

Responsible partner: **BROZ** 





Erebe islands complex Complex measures restoring five islands

- · side arm restoration, groyne adaption
- · invasive tree species eradication

### Responsible partner:

Fertő Hanság National Park Directorate



# **MOLDOVA**

16

UKRAINE

**ROMANIA** 

# **SERBIA**



Gornje podunavje Hydrological restoration on a large scale

· side arm reconnection, dredging · forest management

Responsible partner:

Vojvodinašume



**Palets island** Managing the largest Bulgarian island, acting for other WILDislands

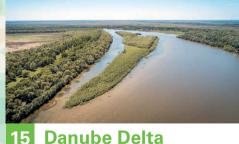
· invasive species management

## Responsible partner:

Persina Nature Park Directorate



# **BULGARIA**



**Danube Delta** Dynamizing "cut-off meanders"

· main channel and cut-off meander restoration

## Responsible partner:

Danube Delta Biosphere Reserve Authority





**Danube Delta** Restoring softwood riparian forests

forest management actions

Responsible partner: **ROMSILVA** 









# WILDisland forest restoration

Commercial forestry alters the composition of species and changes the structure of forests. The intensive planting of poplars in what were once natural wetland forests has had a negative impact. In order to enhance biodiversity, ecological value, and the general health and resilience of forest ecosystems to biotic and abiotic factors, existing poplar plantations are more and more frequently being converted to more stable, mixed forests composed of autochthonous species. Planned measures include the replacement of non-native tree species by native ones (Black and White Poplar, Willow, Oak, Ash, Elm, Grey Alder), and non-invasive follow-up management.

Thirteen forestry pilot measures to restore the valuable softwood forests on an area of just under 352 ha will be implemented in six countries, and will be carried out on the Middle and Lower Danube (project sites 5, 6, 7, 8, 9, 11, 12, 13, 14, 16) by Danube Protected Area administrations (BROZ, Fertő Hanság National Park Directorate, Duna-Ipoly National Park Directorate, Duna-Dráva National Park Directorate, Nature Park Kopački rit, Persina Nature Park, Danube Delta Biosphere Reserve Authority) in close collaboration with state-owned forest companies (including Hrvatske šume, Vojvodinašume



# WILDisland

# restores river dynamics

# WILDisland stepping stones restored with the hydropower sector

The many dams built on the Danube have changed the natural river dynamics and how sediment is transported. Dams also prevent the migration of fish both upstream and downstream. In the river stretches impacted by hydropower, the natural and dynamic WILDislands can no longer be formed and reformed as they would be if the Danube were allowed to flow freely.

LIFE WILDisland has enlisted the support of hydroelectric power companies VERBUND and UNIPER in restoring the wild islands on the Upper Danube. Both have committed to carrying out several best-practice island restoration

activities. Nearing realization are pilot measures near the mouth of the Ussel and in Ingolstadt (project sites 1 and 2), both of which are defined as priorities within the "Key Project 5" of the Bavarian Danube Masterplan.

The largest restoration measure within the framework of LIFE WILDisland will be realized by VERBUND, an Austrian electricity supplier. An ambitious pilot project just downstream of the Asten-Abwinden hydropower dam shall revitalize the landscape by allowing natural river processes to create the dynamic riverine landscape favoured by alluvial softwood forests (project site 3). The planned actions will result in the creation of a new natural island. Once established, it will be designated as a new Natura 2000 site to ensure its long-term protection.





# WILDisland sediment management

The Danube's natural islands originate in and are continuously shaped by - the river's dynamic processes and an intact sediment regime. Yet the building of dams has changed the sediment balance in the Danube to the detriment of wild habitats; river regulation has deeply altered the natural state of the river. LIFE WILDisland is thus implementing measures to improve the water regime of some of these islands by way of dredging. Former side branches have also been reconnected, for example in the Gornje podunvalje Special Nature Reserve by Vojvodinašume (project site 13) and on the Lower Danube by the Danube Delta Biosphere Reserve Authority (site 15). And for the first time, the Danube Delta is the site of dedicated sediment management for former meanders.



# WILDisland Best practice for

EU Green Infrastructure

One key goal of the EU Biodiversity Strategy for 2030 is to legally protect at least 30% of the EU's land areas, and to strictly protect around a third of areas already protected in the EU. The LIFE WILDISland project can help realize this goal by ensuring that step by step, Europe's only remaining WILDISlands are given protected status. Because around 25% of the Danube's wild islands are not yet Natura 2000 sites, the LIFE WILDISland project aims to designate new Natura 2000 sites as well as strictly protected islands

In order to protect the Danube WILDislands in a long term and sustainable way, a non-intervention management approach is most appropriate. It is well suited to raise awareness of the importance of allowing riverine dynamics to unfold naturally.

The EU Nature and Biodiversity Directors have identified the WILDisland programme as best practice for EU Green and Blue Infrastructure. As a flagship initiative, LIFE WILDisland has in fact been a catalyst for the development of island corridors along other major rivers in Europe. Since the start of the project period, experience and know-how has been transferred to other biogeographic regions, with increased coopera-

tion among the various Danube Protected Areas as well as partner initiatives along the Rhine, Sava and Elba rivers.

The WILDisland project shall also develop a transnational strategy for the establishment of the Danube WILDisland Habitat Corridor along with strategic partner organizations such as Ramsar, IUCN, ICPDR, and the EUSDR. The WILDisland Ramsar Regional Initiative should serve as an important tool for the long-term conservation and management of the Danube WILDisland Habitat Corridor, even after the LIFE project has concluded.

# WILDislands for nature, biodiversity and people

The pristine allure of the Danube islands has always been a source of fascination. Protecting them ensures that future generations will also cherish their natural beauty. The LIFE WILD-island initiative is raising awareness of the importance of an intact Danube habitat corridor. Follow us on our journey to ensure that the WILDislands remain a valuable habitat for flora and fauna, and a source of life for the people, cultures, and even economies along the Danube.

Follow us and witness this amazing journey... jointly for the Danube WILDisland Habitat Corridor!



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