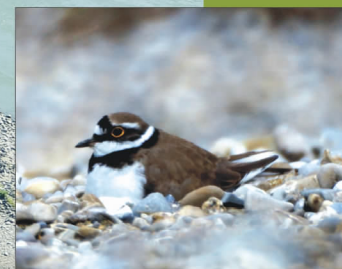


LIFE+ Project Mostviertel - Wachau

www.life-mostviertel-wachau.at



Measures on the Danube

WITH THE ASSISTANCE OF THE FEDERAL AND PROVINCIAL GOVERNMENTS AND THE EU

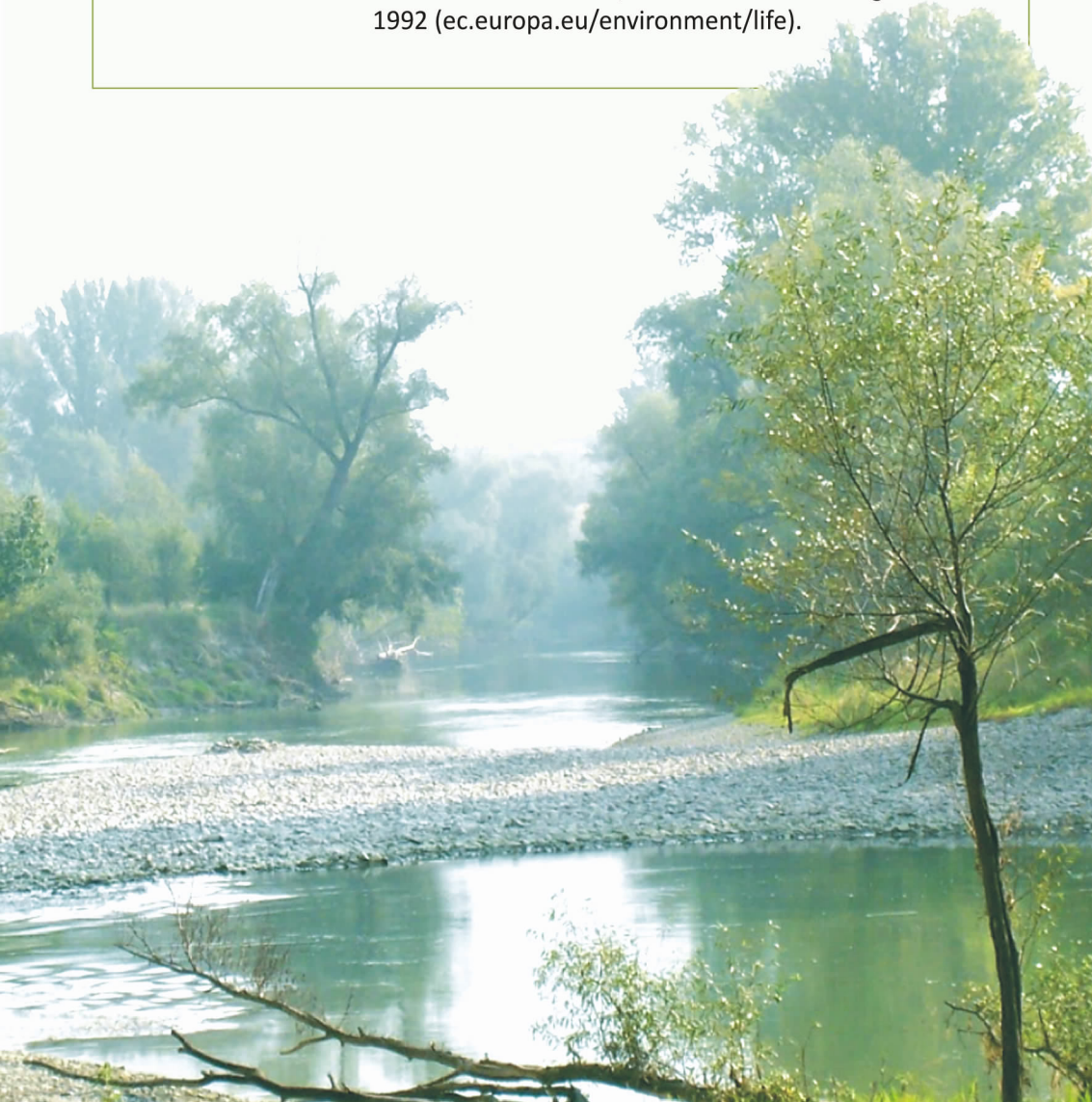




Natura 2000 is an ecological network of specially protected areas across Europe that has been created to safeguard endangered habitats and species. Its legal basis is the Habitats Directive and the Birds Directive.



The LIFE Programme is an EU instrument for funding environmental and climate protection projects. More than 4,000 projects have received a total of about EUR 3,400 billion in funding since 1992 (ec.europa.eu/environment/life).



Objectives and measures – Wachau region

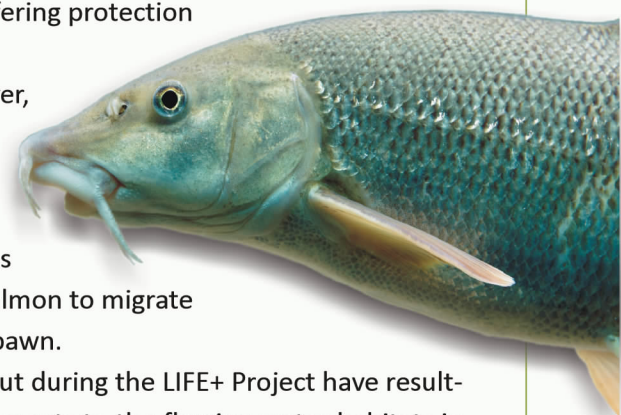
River habitat

Prior to regulation in the late 19th century, the Danube and its rich diversity of water types had provided numerous domestic fish species with adequate habitats, such that many people were actually able to earn a livelihood through fishing as an occupation. The development of communities and the construction of transport and traffic routes and power generation facilities have crucially altered the great river, reducing its flowing-water habitats and their fish populations to scattered remnants. The tide has only turned since Austria joined the European Union and implemented the related Directives (Water, Fauna and Flora Habitats and Wild Bird Conservation) and the associated LIFE projects.

River fish are strongly impacted by the loss of habitat diversity and dynamics and by the waves caused by constantly increasing vessel traffic. Consequently, a key aspect of revitalising the Danube River is to reactivate backwater systems, shallow bays and gravel banks just under the surface, i.e. zones offering protection from wave force.

The Pielach, a nearly-natural river, is the main tributary of the Danube in the Wachau valley. One critical ecological factor is the ability of fish species such as the nase, barbel and Danube salmon to migrate unhindered up the Pielach to spawn.

Subsequent measures carried out during the LIFE+ Project have resulted in critical ecological improvements to the flowing-water habitats in the Danube and Pielach.



Barbel

Schallemmersdorf side-arm



Rich diversity of habitats

The historic side-arm on the left bank of the Danube near Schallemmersdorf was excavated over its entire length of about 2 kilometres and the bank of the Danube was opened to create a wide inflow zone. Downstream, the new Schallemmersdorf side-arm system connects with the Grimsing side-arm, which had already been reactivated previously in the Wachau LIFE Nature Project. The side-arm now encompasses an overall length of more than 4 kilometres.

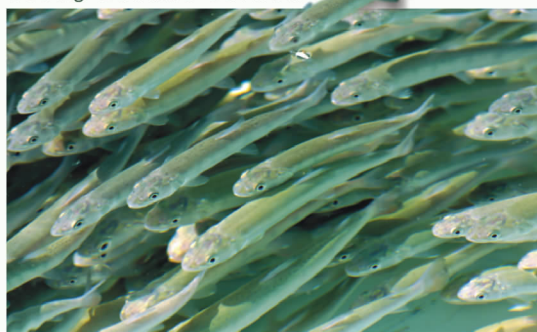
The dynamic variation of shallow fords and deep kolks plus steep and shallow bank zones forms a mosaic of diverse habitats. Numerous endangered species of Danube fish and aquatic birds make use of this new habitat. Protected from waves generated by boat and ship traffic, the side-arm especially ensures the survival of juvenile fish. Diversity has been additionally enriched by creating ponds for amphibians.

Dice snakes, kingfishers, white-tailed eagles and black storks can be frequently observed here.



Danube Salmon

Young Danube Salmon



Schönbühel side-arm

Protection not only for juvenile fish

As part of the LIFE+ Project, a 1.5 km side-arm has been restored along the left bank of the Danube between Schönbühel and Aggsbach Dorf. Endangered fish species such as Danube salmon, Danube roach, schraetzer, streber, zingel, nase, barbel and many more have discovered new, superior habitats here that are sheltered from waves. Shallow gravel-covered banks are an important habitat for juvenile fish. Special vegetation indigenous to muddy river banks and various willow species such as the purple willow and white willow grow in the new, sandy gravel zones. The islands of the flood-plain forest and the surrounding loose gravel banks offer a nature zone for species of fauna such as common sandpipers and little ringed plovers, which are able to raise their offspring undisturbed here. Ownership of these areas by the Republic of Austria as public water property ensures that the floodplain forests, which are rich in deadwood, will evolve without disruption by any commercial use whatsoever.



Danube roach
ready to spawn

Schraetzer Nase



Frauengärten biotope

Preventing siltation

A shore zone, largely silted up and with ponds that periodically dried up, used to exist along the left bank of the Danube between Dürnstein and Weissenkirchen. As part of the LIFE+ Project, the riprap dumped along the banks was removed and the area excavated to create an oxbow lake connected to the Danube at one end.

The body of water, which measures 200 metres in length, is not exposed to the current and is partially protected from waves. It serves as a spawning ground for various Danube fish species, a habitat for juvenile fish and a winter shelter. Shallow zones close to shore and farther out provide a habitat for juvenile fish, which in turn are the main source of food for the aquatic, non-poisonous dice snake. Zones were established at the fringes to hold floodplain forests of willows and rare annual plants indigenous to muddy river banks find ideal conditions for germination on the silt and sand banks that have been strongly shaped by the water level of the Danube.



Dice Snake

Prior to construction... ...and after completion



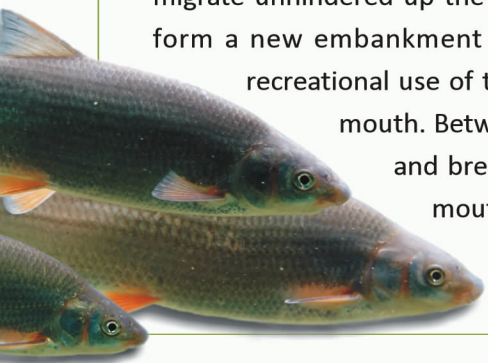
Mouth of the Pielach

Honeymoon

Many species of Danube fish used to travel up the Pielach River in great numbers in spring and early summer to spawn. Species such as the freshwater bream, carp and northern pike, on the other hand, prefer spawning among vegetation in slow-moving waters and would try to reach the Lateiner side-arm. Yet this migration activity, so vital for reproduction, was highly restricted in the past. After completion of the power plant at Melk, the Pielach flowed into the Danube via a stone ramp, which represented an obstacle during low water levels.

As part of the LIFE+ Project, property in the floodplain forests was purchased to create a new course leading to the mouth. This is replete with structures and has a less steep gradient. Today, fish that spawn in gravel, such as the Danube salmon, nase and barbel, can once again migrate unhindered up the Pielach. The excavated gravel was used to form a new embankment along the Danube. Future plans call for recreational use of the new gravel area downstream from the

mouth. Between March and July, i.e. the main spawning and breeding season, landing on the islands in the mouth area and river course will be prohibited to encourage the reproduction of endangered species of fauna.



Nase Danube Salmon ready to spawn





Northern pike

Lateiner side-arm

Interlinking

The 'Lateiner Altarm', a former side-arm of the Danube, had been inaccessible to Danube fish for many years due to regulation and power plant construction.

Yet, the side-arm would have offered a vital spawning habitat for Danube species preferring to spawn in vegetation.

In order to permanently improve ecological conditions for fish, the oxbow lake was connected to the Danube via a nearly-natural stream when the mouth of the Pielach was reshaped, once again interlinking the two bodies of water. This now ensures exchanges of fish and other species of aquatic fauna between the bodies of water.

Scientific research has shown that a total of 28 domestic fish varieties use the interlinking stream for migration. The migrants include numerous freshwater bream, northern pike, species of catfish and carp.

Monitoring - Freshwater bream



Lateiner side-arm



Pielach mouth – Steinwand nature protection area

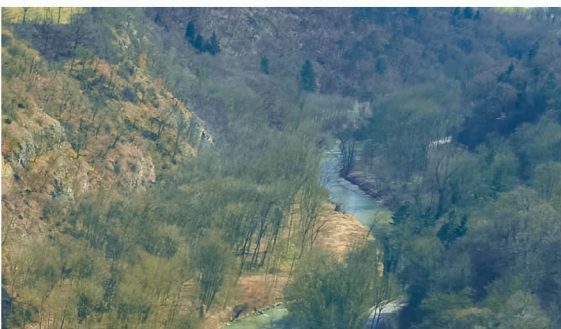
Untouched nature

The LIFE+ Project purchased 20 hectares of shoreline and forest slope along the lowest reaches of the Pielach, with the intention of creating an additional 26-hectare nature protection area adjacent to the Neubacher Au floodplain. The zone encompasses the nearly-natural lower reaches of the Pielach between the village of Spielberg and the mouth, taking in the remaining floodplain forests and the majority of the steep forest slopes known as 'Steinwand'.

Typical of Steinwand are nearly-natural areas of deciduous trees and rock covered with dry grasslands. Here botanical rarities such as the Alpine calamint (only found in the district around Melk) and six orchid varieties are found. Botanists have so far identified 40 endangered plant species in the area. Common sandpipers, little ringed plovers, kingfishers and white-throated dippers breed on the river, and the highly endangered dice snake is frequently sighted. Special dragonflies thriving on the Pielach include the green snaketail and the small pincertail. A pair of owls has taken up residence in the rock cliffs.

Hiking through the area is facilitated by the Steinwandweg trail, which is maintained by the local Spielberg-Pielach-Pielachberg village renewal association. The LANIUS nature protection association (www.lanius.at) has taken responsibility for care of the nature protection area.

Steinwand and Pielach river



Orchid



Protected assets – fauna

‘Protected assets’ refers to the species of plants and animals legally protected by the Habitats Directive or the Wild Birds Directive, and to varieties of habitats especially intended to benefit from LIFE activities. Such assets were the focus of efforts within this LIFE Project towards improving the condition in which they are maintained.

Beaver



Common Sandpiper



Little ringed plover



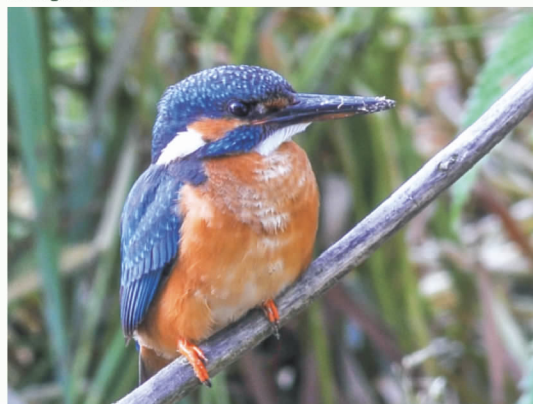
Nest of Little ringed plover



Dice Snake



Kingfisher



Nase



Barbel



Danube Salmon

Facts and figures

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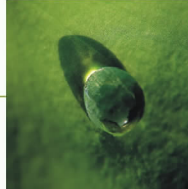
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A map showing tremendous progress

