



Carinthia's biggest nature restoration campaign (2006 - 2011)

Life Vein Upper Drau River

The Drau Comes Alive

Thanks to the financial support of the EU and the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, the Upper Drau is taking on a new look. This once more gives human beings and the river enough space to live.

Between 1999 and 2003, 10 river kilometres have already been revitalised, 22 wetland waterbodies have been constructed and about 100 hectares of alluvial forest have been safeguarded. In the follow-up project "Life Vein Upper Drau River", three further major river widening measures were carried out along a total length of 5 kilometres. In addition, a bed load retention dam was reconstructed in accordance with ecological criteria, and a water adventure zone was created.

These measures not only make an important contribution towards the survival of the protected animal and plant species in the Europe-designated protected area of the Upper Drau, and towards achieving a good ecological state as specified in the EU-Water Framework Directive, but at the same time also improve flood safety in the Drau Valley, in that they widen the runoff area and keep the Drau bed stable - a showcase example of how flood protection and nature conservation can work together to mutual benefit.

The body responsible for organising and implementing the project is the Department of Water Management for the Region of Carinthia. The total cost of 3.8 million Euros is borne jointly by the EU, the Region of Carinthia and the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management.

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LIFE
is an EU aid programme
for the support of Nature
conservation projects in
Natura 2000 areas.



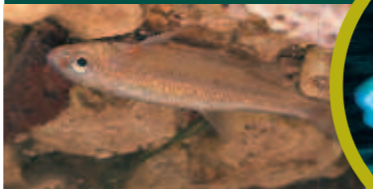
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Rare species: Dwarf Bullrush (right),
German Tamarisk (left).



The Vairone finds a suitable habitat
in the Upper Drau



Yellow-Bellied Toad - are still
commonly found in the Upper Drau.



Danube Salmon

The Life Project helps to preserve natural jewels and safeguard them for the future.

- and near Baldramsdorf, the White Stork has been breeding successfully for years
- frests, one finds species like the Golden Oriole and Lesser Spotted Woodpecker, Common Sandpiper, Grey Wagtail and White-Throated Dipper, in the alluvial
- typical bird colonies on inner-Alpine, branching rivers, with the Kingfisher, during their migration over the Alps
- Upper Drau Valley for birds is correspondingly great, e.g. as a resting place
- over 140 species of bird, including 51 red-listed species; the importance of the it has been possible to successfully reintroduce both species again
- endangered plant species such as the German Tamarisk or Dwarf Bullrush: Danube Salmon or Vairone
- 19 native species of fish, including Europe-wide endangered species such as
- the largest grey alder alluvial forest in Austria
- the last free-flowing, i.e. undammed, stretch of the River Drau

The Europe-designated protected area of the Upper Drau contains many natural treasures, such as:

Natural Jewel

Flood Protection

... through revitalising the river

The flood protection plan on the Upper Drau provides for the fact that (in the case of 10-year floods) floodwaters quite soon overflow the banks and collect in the wide valley area. In this way, so much water is retained here that downriver locations remain free of flooding. Endangered localities are protected locally.

However, this Europewide trend-setting concept started to look increasingly unfeasible. A too-narrow river bed and failure to replenish gravel had accelerated the deepening of the river bed. The result: bank control structures became unstable, and flood plains lost their function.

The Life measures on the Upper Drau now reveal themselves as being the ideal remedy. River bed widening measures stabilise the Drau bed, retain water and at the same time permit new alluvial habitats and local recreation areas to come into being: a win-win situation for both human beings and nature.



The flood disasters of 1965 and 1966 are still painfully fresh in the memory of many people. The Upper Drau Valley was cut off from the outside world, and the valley area was devastated.



In the last big flood in the Upper Drau Valley in 1991, flood retention areas prevent greater damage.

River widening measures have proved to be a successful model on the Upper Drau. They stabilise the Drau bed and possess additional value for flood protection, ecology and local recreation.



A new anabranch comes into being

River Oasis

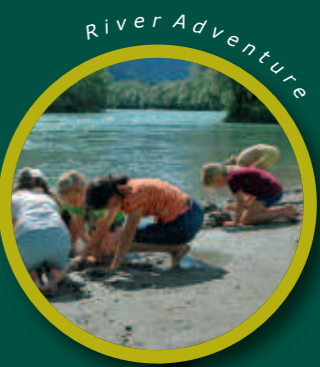
The Upper Drau offers great potential for local recreation and tourism.

Outdoor activities on the river, such as barbecues, hiking, cycling or canoeing, are booming. In order to prevent utilisation conflicts between nature and human beings, a visitor direction plan and an information brochure have been worked out within the framework of the Life Project.

The aim is to concentrate leisure and recreational activities close to the Drau at selected, optimally-suited places. In turn, ecologically sensitive bankside zones are to remain free of such utilisation. This benefits both human beings and nature.



As a first step in directing visitors, the "Drauerlebnisbereich" (Drau adventure area) at Dellach was opened in 2007. A play and bathing bay with an adjoining sunbathing lawn, barbecue area, and a tree house as a lookout and information point, await visitors to the river.



River Adventure



Information points inform visitors about the natural treasures along the Upper Drau. According to the motto "Once people know something, they'll protect it", they encourage visitors to treat nature with respect.

**Open check dam
at Feistritzbach Stream**
The Drau needs “feeding”

A new 8.5 meter-high bed load dosing dam on the Berger Feistritzbach stream protects the village below from floods and debris flows. The special feature is that the crown of the dam is open and allows sand, gravel, wood and debris to pass through in a controlled way. In this way, the nearby Drau is being “fed” again.

This prevents the bed of the Drau from cutting too deeply into the substratum. This measure thus not only increases flood safety in the Drau Valley, but also helps to stabilise the groundwater level in the valley and preserve the semi-natural character of the lower reaches of the Feistritzbach stream.

This benefits many protected species of animals and plants in the Europe-designated protected area of the Upper Drau.



Construction period: 10/2008 – 5/2009
Project costs: € 350,000

In an extreme case, the new bed load retention dam can retain up to 15,000 cubic metres of bed load and driftwood.

River widening measure at Rosenheim
A new home for Kingfishers and Co.

On the Drau near Rosenheim above Spittal, the river bed was widened along a one-kilometre stretch. A new arm of the river, several wetland waterbodies and a system of bayous came into being. Typical river habitats now once more offer a home for rare species or for species which it was once believed had vanished.

The most dazzling example is the Kingfisher. Since 2007, it has been regularly breeding again in the steep faces of the banks of the Upper Drau. In addition, flood protection has benefited too. The widening measure stabilises the river bed and in an emergency, the river bed can now take in more water.



Construction period: 11/2006 – 6/2007
Project costs: € 500,000

You'll find live, up-to-date pictures of the river widening measure at Rosenheim at www.life-drau.at.

An Overview of Measures
Main focuses of the Life Project 2006 – 2011



The Upper Drau is integrated in the **Natura 2000** network of European protected areas, which has set itself the aim of preserving Europe's rich variety of wild animals and Plants, and their habitats.

The Europe-designated protected area of the Upper Drau (green) covers an area of about 1,000 hectares. Most of the area is a “public water resource” owned by the Republic of Austria.

Construction period: 2/2010 – 5/2011
Project costs: € 1,250,000

At 3 kilometres long, the Life widening measure at Obergottesfeld is the largest river revitalisation project in Carinthia.



River widening measure at Obergottesfeld
Unique far and wide

Since 2011, the Upper Drau between Kleblach/Lind and Sachsenburg has taken on a new, semi-natural look. The excessively narrow, now out-of-date corset of bank revetments was removed along a 3-kilometre stretch of river. Instead, groynes installed below the surface perform the function of securing the banks in the event of

flooding. The newly-acquired freedom of movement is apparent in several river bed widening measures, side-channels, dead waters and standing waters. In a land re-allocation procedure, an area of 25 hectares was acquired and redesignated a public water resource for this purpose - a trail-blazing trend for river, nature and human beings!



Construction period: April – October 2009
Project costs: € 500,000

Already during the first year after completion, 6 amphibian species were observed here again.

River widening measure at Amlach
“Nurseries” for fish and frogs

On the Upper Drau near Amlach below Spittal an der Drau, over 60,000 cubic metres of earth and gravel were moved along a 1.2 kilometre stretch of river. The result: the river bed was widened by 20 metres, a new anabranch of the river and several wetland waterbodies. On the areas between, approx. 2 hectares of alluvial forest will develop over the next few decades.

The construction of this major distributary has created a valuable sanctuary for many species of fish. The new alluvial ponds serve as “nurseries” for young fish and amphibians.

Supporting studies confirm that, thanks to this measure, the number of amphibian species has dramatically increased - from one species to six. And it's an upward trend!