

The Vrbje pond with hinterland



The applicant: The Development agency Savinja and partners: The Institute for Geography and Regional Sciences Karl - Franzens - University Graz Austria, The Municipality of Žalec, The Institute of the Republic of Slovenia for nature preservation, The Environmental Society Radoživ, The Forestry association Celje, The Institute of culture, sports and tourism Žalec. The project is implemented by Razvojnaja agencija Savinja and partners. The views expressed publication do not necessarily reflect the views of the European Commission.



LEGEND		habitats	
	learning path		pond
	entrance		streams and rivers
	information place		gravel beds
	parking place		reeds
	bird observatory		riverside vegetation
	INFO object		remains of lowland forests
	Natura 2000 area		belts of forests and bushes
			extensively cultivated land
			intensively cultivated land
			roads and paths
			settlement



The PHARE programme
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Crossborder preservation of biodiversity
and sustainable development
"Eco-tourist enrichment of the Vrbje pond"

ECO-LEARNING PATH OF VRBJE





Eco-learning path of Vrbe 1, 7, 10 *

The area between the Savinja and the Struga, south from the Vrbe settlement, wasn't subjected to urbanisation and intensive agriculture on account of its flooded parts. Some interesting habitats have been preserved, such as remains of flooded forest, numerous belts of trees, meadowlands, the river with gravels and the recently-created pond. Most of these habitats are either very rare in the Savinja valley or they have completely disappeared.

The area has abundant and interesting fauna and flora. The pond itself is also important for warm-water fishing. The area affords shelter to different species of animals, among them being the most important birds, amphibians and a dragonfly.

The learning path, which is about 3 km long, is well marked and is easily taken by all age groups of visitors in all seasons. Within the PHARE project in the year 2006 near the pond birds observatory and information centre were built-up.

Meadows with belts of trees and bushes 2

In the area around the Vrbe pond, there are also meadowlands with numerous belts of trees and bushes. They play both esthetical and ecological role in the landscape.

Besides, they offer shelter to numerous animals and plants and are important to the environment for the wood and diverse fruits which they provide.

As the whole area, meadowlands as well are getting extensive, which means they will not be fertilized with the first mowing in summer time.

On the other side of the Struga there are meadows with numerous hedges which set an example of good management harmonized with the nature. They are of great esthetical importance to the environment and provide wood and other numerous fruits.

The belts of trees and bushes offer shelter to a number of animals. From the place you have a beautiful view of the surrounding hills, across the Savinja river, e.g. the Kotečnik, the Gozdnik and the Kamnik.

Flooded forest 3

The area is given variety by individual groups of trees that once covered the valley. There are practically no surviving flood forests on the banks of the Savinja River, although they still play an important role in containing dozens of tree and bush species. The herbal layer is even more various there.

The Vrbe pond 4

The pond covers 13,5 hectares of land and it has abundant and interesting flora and fauna. Various species of so-called warm-water fish are bred in the pond which is emptied once a year for the needs of a fish harvesting. It is also important to other animals, especially birds, which can be observed in all seasons.

Both, the Vrbe pond and the Savinja River with its surrounding parts combine several different living spaces (e.g. the pond, gravel beds, the river, belts of trees and bushes, remains of flooded forests), which are of great importance as they afford shelter to different species of animals. The whole ecosystem of the pond and the river can be endangered by destroying only one of the above listed living spaces. The pond is very important to birds, as well as to some amphibian species and dragonflies. In the Savinja River there are many sorts of fish. Furthermore, many other animal species, such as a Hedgehog and a Weasel can be found here.

Around the pond there are numerous Edible Frogs *Rana kl. esculenta* as well as Tree Frogs *Hyla arborea*. Of the entire 20 amphibian species known to live in Slovenia, at least 7 have been recorded living around the Vrbe pond.

Among reptiles, lizards, such as the Sand Lizard *Lacerta agilis*, are common on the banks of the pond. In and around the pond live two unpoisonous snake species, the Grass Snake *Natrix natrix* and the Dice Snake *Natrix tessellata*. The last is rarely found in Slovenia.

The pond with its surroundings is extremely important for birds and about 130 species have been recorded in the area.

Along the river and on gravel beds 5

The course of the Savinja river was regulated in this place more than 100 years ago. Despite numerous interventions in the river (e.g. removal of gravel, consolidation of banks), the Savinja has kept a part of the original stream.

The gravel beds and eroded walls typical of a naturally preserved river are still present here. Here you can still find an eroded wall which is very important to the Kingfisher *Alcedo atthis* which is one of our most colourful birds.

Gravels, which are created by the river depositing eroded materials in the inner side of its turn, are important to some less developed animals. These ones play an important role in water self-cleaning. Two birds are present here, the Common Sandpiper *Actitis hypoleucos* and the Lapwing small plover *Charadrius dubius*.

Natura 2000

Natura 2000 is a European network of ecologically important and protected areas whose vegetation, fauna and certain habitat species should be preserved. It connects two types of areas. The first are special areas for preservation (SPA) on the basis of Birds Directives, the second are preserved areas (SAC) as defined within the Habitat Directive.

Savinja region covering 51 ha makes part of smaller Natura 2000 areas in Slovenia. It was defined on the basis of conservation of two fish species – Mediterranean Barbel *Barbus meridionalis* and a kind of Danube Salmon *Hucho hucho* and a habitat type »Alpine river and wood vegetation of willows and German Tamarisk *Myricaria germanica* on its river banks.

Birds 6

The pond with its surroundings is extremely important for birds and about 130 species have been recorded in the area. Lots of them only stop here during migration; some of them over winter here if conditions are good enough, while many species build their nests on and near the pond. Birds can be seen around the lake in all different seasons.

The most common among these nesting directly on the pond is the Coot *Fulica atra*, the Little Grebe *Tachybaptus ruficollis*, the Great Crested Grebe *Podiceps cristatus*, the Moorhen *Gallinula chloropus*, the Mallard *Anas platyrhynchos*, and the Marsh warbler *Acrocephalus palustris*. There are seven bird species which nest regularly on the pond.

The pond itself is of great importance to both species of the Crested Grebe and the Coot at the time of nesting. 2% of the entire Slovene bird population of both species nests here respectively.

Once in a while there are also some rare species nesting, even for Slovenia, such as the Black-necked Grebe *Podiceps nigricollis*, the Little Bittern *Ixobrychus minutus*, the Garganey *Anas querquedula* and the Little Crane *Porzana parva*. It is possible to observe a large number of birds both in summer and autumn. At that time different species of herons, geese, ducks, sandpipers, gulls and terns stop on the pond. Songbirds also fly over here but are hardly observed since they hide and dwell inside rich vegetation.

Agriculture and fishing 8

The whole Savinja valley is famous for its hop production, which is also called »green gold« in this area. The production of hops began more than 100 years ago. In the area of the Vrbe learning path you can see some fields of hops. A hop is a plant whose underground parts grow new sprouts every year and is therefore kept in the fields for several years.

The pond is used as a fish rearing pond, and occasionally the water is used for irrigation. Different warm-water species of fish, mainly from the family of carps, e.g. the Carp *Cyprinus carpio* are bred in the pond. Carp fish are more easily adapted to a changeable quantity of oxygen as compared to the Trout. Water flows into the pond and out of it through a special shaft. The drain itself regulates the level of water in the pond and enables its emptying. All fish are caught from the pond in autumn.

Water saws and mills 9

In the past there were many water saws and mills in the Lower Savinja Valley. Numerous records on mills can be found in land registers. A great number of them were constructed by the so called artificial channels which are only the synonym for a mill stream. These channels were made to increase the fall of water. The two mills which were later on transformed into water saws operated at Vrbe as well.

*** Learning points are marked on the map from 1 to 10**