



A guidebook of the ecological path

Let's go to the Vrbje pond!



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- www.ribnik-vrbje.si.

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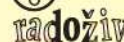
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THE REGIONAL ENVIRONMENTAL CENTER
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Where is the pond?

The Vrbje pond is situated only two kilometres south from the town of Žalec. Outside Žalec we turn towards Vrbje and at the end of the settlement we take the marked path leading us to the pond.

The Savinja River runs south from the pond where are also numerous fields of hops, with some remaining meadows and fields in the east.

The pond was given its name by the village of Vrbje, the nearest settlement. It covers 13,5 hectares of land and generates its water source from the Savinja river, through the Struga and the Podvin-Žalec canal which was created to propel water mills and saws in the past. Water flows from the Savinja River into the Struga.

Rich vegetation

The pond is full of immersed and floating vegetation. There are two sorts of cattails, broadleaf *Typha latifolia* and narrowleaf *T. angustifolia*, which grow in the shoals of the pond. Beside reeds there is also floating vegetation, such as Curly Pondweed *Potamogeton crispus*, Floating-leaved Pondweed *P. natans*, Sago Pondweed *P. spicatum*, Eurasian Watermilfoil *Myriophyllum spicatum* and Lesser Duckweed *Lemna minor*.

The trees growing on the banks of the pond are mainly willows. The herbal vegetation includes Dewberry *Robus caesius* and non-autochthonous Himalayan Balsam *Impatiens glandulifera*, which supplant autochthonous vegetation and bloom in summer time.

Rich vegetation, especially trees and shrubs, can also be found by the Savinja River as well as in the meadows east from the pond.

Importance for fauna

Both, the Vrbje 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),



Labod grbec - *Cygnus olor* - Mute Swan



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.

Amphibians and reptiles



Kobranka - *Natrix tessellata* - Dice Snake

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 Vrbje 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.

Birds

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.





Rumeni strnad - *Emberiza citrinella* - Yellowhammer the Little Bittern *Ixobrychus minutus*, the Garganey *Anas querquedula* and the Little Crake *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.

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*,

Just throughout the autumn season the pond becomes very important to a large number of Moorhens, Coots and Wigeons *Anas penelope*.

In the vicinity of the pond lots of birds can be seen as well. On the banks of the Savinja

River the rare Common Sandpiper *Actitis hypoleucos* nest. In the empty pond occasionally nest also the Little Ringed Plover *Charadrius dubius* and the Lapwing *Vanellus vanellus*. Both have already nested around the pond. Besides, different songbirds nest either in the remains of forests along the Savinja River or in belts of trees and bushes between meadowlands.



Pikasti martinec - *Tringa ochropus* - Green Sandpiper



Curiosities in the vicinity



Dvorec Novo Celje - The Novo Celje mansion

In the past two mills operated on the Struga in the vicinity of the pond. Later on they were both changed into water saws, but they are not in function nowadays.

Close to the ancient cloister just where one of the mills used to be, you can see a smaller power station. In the village of Vrbje there is one more sight of interest which descends from the 17th century, the straw-covered Vizjak's home.

The town Žalec has several museums and galleries among which it is important to mention

the Savin house from the 17th century with a memorial room dedicated to the composer Risto Savin.

Near Žalec there is one of the most important baroque mansions in Slovenia, the Novo Celje mansion, which is a miniature imitation of Viennese Schonbrunne.

A bit further in the middle of Šempeter, there is a famous Roman Necropolis where the most beautiful Roman tombs in Slovenia can be admired. The Pekel Cave is situated on the edge of the Ponikva karst, which extends between the Savinja River, the Gora Oljka and the Valley of Pirešica and Polzela. Here you can admire meadows, forests and a karst landscape that few other regions can boast. As there are numerous sights of interest to visit, the town Žalec offers also the possibility of accomodation.

Let's set out (1) (7) (10)

The path around the Vrbje pond, the so called »A learning ecological path of Vrbje«, with a trademark of the Great Crested Grebe, is marked with numerous information boards and is passable in all seasons. The Great Crested Grebe guides visitors all the way long.

The path leads you between the Savinja River and the Struga where interesting living spaces have been preserved, such as remains of flooded forests, belts of trees and bushes with meadowlands, the river with gravel beds and the pond itself.

Most of the above mentioned habitats are extremely rare in the valley. Therefore the area is of great ecological significance to the fauna and flora. The learning path is 3 km long, running all the time on the plain and it is therefore easily taken by all age groups of visitors in all seasons.



Meadows with belts of trees and bushes (2)

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 pond (4)

The pond 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.

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.

The river is important to two species of fish, a kind of a danube salmon *Hucho hucho* and the Mediterranean Barbel *Barbus Meridionalis*. Here you can find a plant named German Tamarisk *Myriophyllum spicatum*. This part of the Savinja River belongs to the Natura 2000 areas which are considered to be the most valuable preserved areas in Europe.

Birds (6) – see page 3

Raca mlakarica - *Anas platyrhynchos* - Mallard



Agriculture and fishing

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 Vrbje 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

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 Vrbje as well.



Štrausova žaga - Štraus sawmill



Natura 2000

Natura 2000 is a European network of ecologically important and protected areas whose vegetation, fauna and certain habitats 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.



Natura 2000 - Savinja pri Žalcu

The main objective of the EU's Natura 2000 project is to conserve the areas of internationally important animal and plant species habitats as defined within both directives which certainly includes also a human role. It is important to ensure sustainable development in order to satisfy the needs of current and future populations.

The diversity of plants and animals is the wealth bequeathed to us through sustainable land-use by our grandfathers.

Slovenia can boast about 61 habitat types of European concern as well as 250 plant and animal species from both Directives.

On this basis, 26 areas for the conservation of threatened bird species, as well as 260 areas for the conservation of rare plant and animal species and habitats. All Natura 2000 areas or special areas of conservation thus cover more than 35% of Slovene territory.

The Savinja River and NATURA 2000

The 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.

In the Natura 2000 network there are different financial sources available. Besides, preserved nature represents a big developmental potential which can be attained within the adequate connection of agriculture, tourism and nature preservation.

From this point of view, Natura 2000 as a trademark, reminds us of areas where it is still possible to relax and enjoy in the preserved nature.

