



CONVENTION ON WETLANDS
CONVENTION SUR LES ZONES HUMIDES
CONVENCIÓN SOBRE LOS HUEDALES
(Ramsar, Iran, 1971)



Ramsar Cultural Network in the Carpathian Region

Carpathian cultural heritage in wetlands



*Ramsar Cultural Network
in the Carpathian Region*

Carpathian cultural heritage in wetlands



Banská Bystrica, 2018

© Carpathian Wetland Initiative 2018

Published by Carpathian Wetland Initiative

www.cwi.sk

in cooperation with the State Nature Conservancy of the Slovak Republic / Štátnej ochrany prírody Slovenskej republiky, Banská Bystrica

Compiled and edited by:

Ján Kadlecík (main editor)

Natália Kubicová and Tereza Thompson (co-editors)

Project leaders:

Ján Kadlecík and Natália Kubicová

Authors:

The document has been compiled from material contributed by:

Administration of Djerdap National Park, Serbia

Leonard Ambróz, Eva Farkašovská, Iveta Chomová, Zuzana Šimková, Mária Ošková – Slovak Museum of Nature Conservation and Speleology

Peter Andráš (map), Milan Barlog, Ján Kadlecík, Natália Kubicová, Eva Pietorová, Ivan Šustr, Zuzana Václavová, Milan Zajac – State Nature Conservancy of the Slovak Republic

Dagmar Haviarová – SNC SR, Slovak Caves Administration

Roxana Ionescu – Ministry of Environment, Romania

Adriána Kušíková – Ministry of Environment of the Slovak Republic

Břeněk Michálek – Czech Ornithological Society, Czech Republic

Katarína Nádaská – City Hall Archive in Bratislava, Slovakia

Bohdan Prots – Danube-Carpathian Programme, Ukraine

Libuše Vlasáková – Ministry of Environment of the Czech Republic

Disclaimer:

This publication was made possible through financial support from the Ramsar Convention Secretariat's MAVA Foundation funded project entitled 'Conservation of the natural and cultural heritage in wetlands: Global leadership for an integrated approach through the Ramsar Convention', and was co-financed by the State Nature Conservancy of the Slovak Republic and the Ministries of Environment and organisations mentioned above, pursuant to Decision SC53-15 of the Ramsar Standing Committee. This publication does not represent the views or stated policy of the Ramsar Convention or its Secretariat, relevant ministries and organisations, or MAVA, and the authors are responsible for the choice and presentation of the facts contained in this publication and for the opinions expressed therein.



CONVENTION ON WETLANDS
CONVENTION SUR LES ZONES HUMIDES
CONVENCIÓN SOBRE LOS HUMEDALES
(Kanaw, Iran, 1971)



Prologue

Wetlands in all their variety are among the most significant and important natural phenomena of the Carpathian mountain region and its adjacent basins and lowlands, receiving the water flowing from the mountains - the biggest, the longest and the most rugged mountain range of Europe. This region reaches the area of eight states – the Czech Republic, Austria, Slovakia, Poland, Ukraine, Hungary, Romania and Serbia. Its nature values and rarities were summarised in various papers and publications, however, none of these has dealt with especially rich and varied world of cultural expressions of these nations towards the water, rivers, brooks, springs, waterfalls, lakes, peatbogs, marshes, wet grasslands, meadows or woodlands.

Thanks to the Ramsar Convention Secretariat's offer to carry out a survey of its wetlands' cultural values, it was possible to search out this relatively unexplored field within the project *Ramsar Culture Network Development in the Carpathian Region*, based on the MAVA Foundation funded project entitled 'Conservation of the natural and cultural heritage in wetlands: Global leadership for an integrated approach through the Ramsar Convention', co-financed by partners of the Carpathian Wetland Initiative. The aim was to identify, document and make available information about notable cultural values and practices associated with wetlands in the Carpathian countries. Information collected will support both the conservation of cultural heritage and the Ramsar Convention's aim of integrating cultural aspects in the management of Ramsar sites and other wetlands¹. In a relatively short time that was available, we managed to obtain the first initial background information as well as motivation and inspiration for future more profound study of this topic, which would definitely deserve its own book publication.

Cultural values of wetlands of the Carpathian region

Wetland cultural values of the Carpathians and adjacent areas of the Danube basin were mostly identified in protected areas of national importance, as well as in areas of international importance (Ramsar Sites).

Using a questionnaire elaborated based on the Ramsar Guidance on Rapid Cultural Inventories for Wetlands² and distributed to partners of the Carpathian Wetland Initiative, and by studying other literature and internet sources, we have gathered a primary information on this topic from the area of Slovakia and Ukraine, partly from the Czech Republic, Hungary, Romania and Serbia.

¹ <http://www.ramsar.org/activity/ramsar-culture-network>

² Pritchard, D., Ali, M. & Papayannis, T. 2016. *Guidance: Rapid Cultural Inventories for Wetlands. Ramsar Culture Network*. http://www.ramsar.org/sites/default/files/documents/library/guidance_-_rapid_cultural_inventories_for_wetlands.pdf

Carpathian rivers and related wetlands

Well preserved sections of **rivers and brooks** are typical natural phenomena of the Carpathian region. Their rare fauna and flora, as well as their geomorphological particularity, have contributed to the protection of many of them. They are either protected within the national network of protected areas, or they belong to the list of internationally protected areas within the networks of areas of European importance (Natura 2000 or Emerald Network). Some of them are enlisted as globally important wetlands within the Ramsar Convention.

The latter is the case of the Ramsar Site **The Orava River and its Tributaries (Rieka Orava a jej prítoky)**, which represents a well preserved system of river ecosystems of mountain and submountain streams in the north of Slovakia (Dolný Kubín and Tvrdošín Districts). The river is protected within the national network as well as within the European network of protected areas Natura 2000.

Orava is a primary historical name of the river and the area of its watershed. Judging by its sound, the name Arva was originally related to the river. The word itself is of Gaulish origin. Celtic (old-Gaulish) word *arvos*, *arva* means rapid brook, rapid water – a characteristic of fast-flowing brooks and rivers. Celtic (old-Gaulish) tribes lived in the vicinity of the Orava River and in the south Orava region around the beginning of Christian era and stayed during the whole Migration Period. The name Orava could also have its origin in the Germanic name for stone pine: *Arve*, *Arva*. Regardless of its Celtic or Germanic origin, the name *Arva* was taken by Germanic tribes which settled in this area. Old-Slavonic population has continued in using this name³.

An old trade route, joining the region with the Poland, had lead along the river. The river was also used to transport the timber, merchandise or building material on rafts. In the Middle Ages, the rafts used to transport salt extracted from Polish salt mines. The volume of the salt transported on the Salt Route in Orava reached up to 24 000 salt blocks, which is a respectable 16 800 tons (560 lorries a year, in today terms). The river was the main source of livelihood. The lords of Orava cashed 90 to 120 000 guilders per year for salt transportation. The value of the salt transported in a year was 500 to 600 000 guilders, which was a huge asset. Thurzó family has already in 1540 established the settlement of Kraľovany, which was placed at the point of inflow of the Orava River into the Váh River. It was a rafting and fishermen village, where the merchandise was loaded on to the rafts heading down the river Váh.



Orava River ©Jaroslav Košťál

Rafting has developed into a unique type of collective work, which provided livelihood to almost half the population living near the rivers. The origin and development of rafting was preconditioned by the presence of large woodland complexes, the river passability and the need to make commercial use of timber richness of other, especially lowland areas of the country and of abroad.

Rafting at the Orava has seen the highest development during the 19th century, which relates to a rapid growth of the rafting as a whole in Slovakia and with the development of timber industry. Rafting was not only the way to transport the timber, there were many other types of products transported as well, such as crafts products of people living in mountain areas rich in timber. Rafters have largely contributed to the development of national as well as international trade. The long-distance rafting has reached the Black Sea, where the spruce of the Carpathian origin was a much-sought-for material for building the lamp-posts of the ocean liners. This type of rafting has ceased to exist with

³ <https://namestovo-orava.webnode.sk/dejiny/dejiny-po-10-storocie/>

the dissolution of the Austro-Hungarian Empire. However, even during its last development phase in Slovakia, rafting in Orava has still played an important role as a timber products' way of transport up until 1953, even if locally only. In 1953, the Orava Dam was built, which brought an end to rafting at the Orava River.⁴

Civic heraldry of Kraľovany. It is a reminder of rafting traditions as recorded on models of seals from 18th and 19th century.

The motives of rafters and rafting are often seen in the artwork of influential Slovak artists such as Martin Benka, Koloman Sokol, Karol Ondrejička, Miloš Alexander Bazovský and others.



Gustáv Mallý, 1930-1945: Rafters on the Orava River

⁴ <http://www.plte-orava.sk/index.php/historia>



Tourist rafts on the Dunajec River ©Zuzana Kadlecíková

Rafting tradition is now a tourist attraction carried out at the Slovak – Polish border, e.g. in Pieniny at the river Dunajec (bilateral national park Pieniny on Polish and Slovak side of the border), and at the Váh and Hron rivers in Slovakia.



The Orava River is nowadays used by rafting tourists only occasionally. The main tourism attraction of the region is the village Oravský Podzámok with one of the most beautiful and most visited Slovak castles, which is situated above the river and offers beautiful views over the area and the river itself. Orava Castle is a significant dominating feature of the Orava region and it belongs to the most important monuments of castle architecture in Slovakia.

Orava castle cliff (which is a part of the Oravská vrchovina upland) has since long ago been a fortified hillfort, protected by a rock massif from north and by a semi-circular earth embankment from the south. The highest part of the castle is placed 112 metres above the surface of the Orava River. The castle mound has already been inhabited in prehistoric times. A walled castle was built here in the middle of the 13th century (the first written record is from the year 1267), it most probably replaced an original smaller wooden castle. The castle was built at a strategically important place of Hungarian-Polish route. The castle complex gained its current resemblance at the beginning of the 17th century. After its restoration during the years 1953 - 1968 it has become a residence of the Orava Museum, running the expositions of historical, entographic and natural values of the region.



Orava Castle



Folk architecture in Podbiel ©Milan Perfecký

Tourists are also attracted to the remnants of the folk architecture, especially the wooden houses preserved in the villages along the Orava River. Part of the village Podbiel, Bobrova rala, was designated a cultural reserve of folk architecture in 1977.

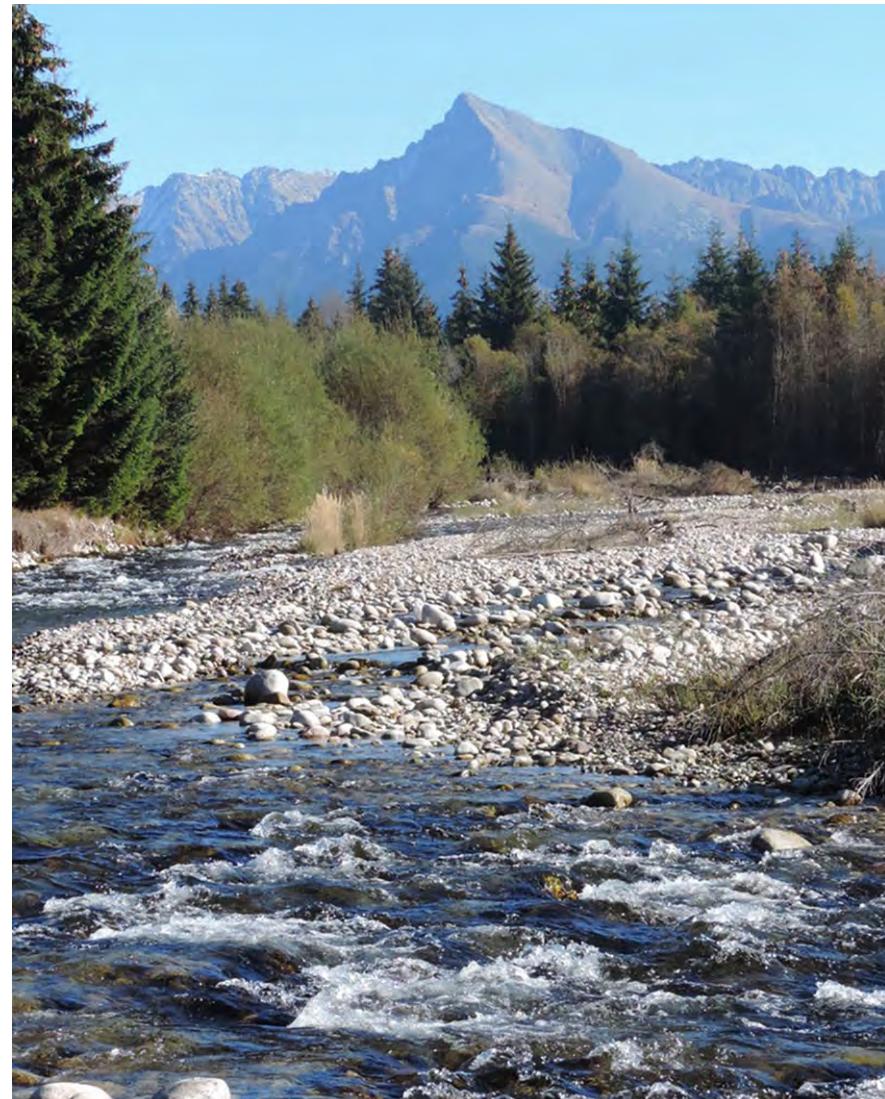
The legend has it that the first inhabitants of the Orava region were giants. The mother and her son have settled down in the cave under the hill Magura. The countryside was bleak and the young giant longed to change that. He has asked his mother about it, who stepped out of the cave and told her son that the land needs water. Then she retreated to the cave and thought about the forlorn country until a great sorrow came upon her and she started crying. Her tears in the cave mounted to two lakes and once they filled up, the water started to flow out and run in between the mountains.

That water is the river Orava.



One of the best preserved rivers in the Slovak Carpathians, **the Belá River** with its catchment area in the Tatras National Park (which includes mountain lakes, peatlands, springs, waterfalls, wilderness area with mountain forests) is a candidate for the new Ramsar Site in Slovakia. A documentary film “Living River” about the values of these ecosystems was produced in 2017 (Arolla Film in co-production of the Slovak Radio and Television RTVS) by director Erik Baláz.⁵

The Ramsar Site Wetlands of **the Orava Basin** also covers several internationally protected areas of Natura 2000 network: Rašeliniská Oravskej kotliny (Site Code: SKUEV0057), Rieka Jeleňa (Site Code: SKUEV0222), Zimník (Site Code: SKUEV0193), Oravská vodná nádrž (Site Code: SKUEV0304), Rašeliniská Bielej Oravy (Site Code: SKUEV0191), all placed in the district of Námestovo and Tvrdošín.



Belá River and Kriváň Mt. ©M. Proházková

⁵ <http://www.arollafilm.com/sk/produkt/117-ziva-rieka>

The Orava Reservoir (Oravská vodná nádrž) is part of the water management construction Orava (including the levelling dam Tvrdošín), built on the confluence of the rivers Biela and Čierna Orava. It is located in the north of Slovakia, in the region of the same name. The construction work has commenced on 24th of July 1941 and the dam launched into operation in 1954. Its waters buried several villages: Slanica, Osada, Hámre, Ústie, lower part of the village Bobrov and two thirds of the town Námestovo. This is the reason why this town lacks the



Wetlands of the Orava Basin ©Zuzana Kertysová

historical centre. The only two objects peaking from above the water surface are the remains of the small hill belonging to the Slanica village. The fist one is called Slanický ostrov Island or Ostrov umenia (The Art Island) and the second one is the Vtáčí ostrov (the Bird Island). Their interconnection is visible during the low water levels. The Orava reservoir, together with its banks and islands belongs to the most important waterfowl sites in Slovakia. It lies on the cross-border waterfowl migration route (between Slovakia and Poland).

Wetland habitats in the area, depending on the specifics of local conditions, were usually mowed and, for its low fodder quality, the biomass was used for animal bedding. The less wet areas were grazed. Today, these areas are mostly abandoned.



Orava Reservoir ©Michal Glonek

The fishing at upper Orava is practiced especially due to the existence of the Orava reservoir. It is a widely known as a quality angling ground, visited also by fishermen from abroad (Czech Republic and Poland mostly).

It is possible to hear the goral dialect spoken in several villages. The word wetland in goral dialect is „Bor“.

Orava reservoir belongs to popular tourist centres. Thousands of tourists visit this area each year. The south and west part of the dam is most visited in the summer. During the times of heavy frost it is used to for winter sports and walks over the frozen water surface, and that not only by locals.

The banks of the reservoir are used for recreational purposes, swimming, yachting, water-cycling, boat trips, windsurfing and other water sports and attractions. There are many places in the town Námestovo that offer accommodation and catering, several hotels, many cottages and camps in the vicinity of the dam. Water cruises to the island are offered in the summer. The most important recreational centres are Slanická Osada, Prístav, Studnička and the beaches near Námestovo.

There is an increase in the development of cycling in this area, which lead to building of several new cycloroutes by using already existing communications. The best known is the cycloroute Trstená – Nowy Targ (in Poland), which follows the restored embankment of former railway and which was launched into operation in 2015.

Slanický ostrov umenia, which is the remnant of the inundated village Slanica, bears a Roman Catholic church built in the 18th century and a lapidary. The church building holds a permanent exhibition of Orava region folk art, plastic art and paintings. Ceremonial concerts are held here occasionally.



Slanický ostrov umenia ©Michal Glonek



Roman Catholic Church ©www.mapio.net_joko

The Hron River is the second longest watercourse in Slovakia and as such it is often connected with various legends:



Meander of the Hron River ©Miloslav Brandt

A tale about the River Hron

Once upon a time, when giants lived in our mountains, there was a Mother Kráľova hoľa (a mountain) who gave birth to a baby boy called Hron (a river). She loved him very much, but the giants were of different opinion. Hron was boisterous; he used to enter giants' yards, gardens and even houses. The giants went to complain to the Mother and as they did not succeed, they went to ask Ďumbier (a mountain), Earl of the Low Tatras, for an advice. He decided that Hron should see the world and run to the sea, as every proper watercourse should do. However, this made the Mother sad, she pleaded for her son with Ďumbier. Ďumbier decided that the giants should make the way for Hron and lead him to Hron's uncle, river Dunaj (Danube). So the giants ploughed the way starting at Kráľova hoľa, downwards through the gorges and gulleys, rocks and cliffs, Low Tatras on the right side, Rudohorie Mountains on the left side, Kremnické Mountains on the right side, Javorie on the left side, Vtáčnik on the right side and Štiavnické Mountains on the left side. The road through the rocks is once straight, once twisty. Then it comes to the flatland and again the giants plough the furrow through soft muddy and sandy south plain. They reached the Dunaj/Danube River and soon the Hron followed, all white from being churned up. After they said goodbye, the giants turned to walking back home. The plough is heavy and as the giants are tired, they decide to leave the plough where it is as they don't need it anymore. After many years, people built a town called Zvolen at this place. They could not move the giants' plough and so they decided to use it as a base for the town's walls to make it stronger.



A distinct region **Transcarpathia in Ukraine** represents a specific region harbouring some well-preserved streams and wetlands, as well as rich live traditions.

The **Cheremosh River** belongs to the best preserved rivers of this region. It is formed by the confluence of the Black Cheremosh (87 km, the drainage basin - 856 km²) and the White Cheremosh (80 km, the drainage basin - 606 km²) near the village of Usteriky. It flows on the border of Ivano-Frankivsk region (Verkhovynskyi, Kosivskyi, Snyatynskyi districts) and Chernivtsi region (Putylskyi, Vyzhnytskyi, Kitsmanskyi districts).

It is a historic border area with high cultural and natural diversity. The White Cheremosh and Cheremosh rivers flow on the border of historic Galicia and Bukovina. For centuries, they were the state border between Poland and Moldavia (Ottoman Empire). From 1919 to 1939 there was the border between Poland and Romania. There are testimonies proving the history of the residence, like monasteries, churches, buildings with special architectural features (hutsul houses, water mills). The existence of an ethnographic diversity with different traditions and customs can be seen there – largely dominated by Hutsul and Boiko ethnographic groups of Ukrainians. There are also some traces of Neolithic settlements.



Cheremosh River ©<http://vsviti.com.ua/nature/25399>

Elements of cultural heritage present on the area of the Cheremosh River have regional and national importance through the age of populating this space. Along the river catchments of the Black Cheremosh and White Cheremosh, there are almost no cities, the settlements are confined mainly to the water and the conflux of the above rivers. Houses are traditionally built of wood and handicraft materials.

The large number of churches and chapels (over 30) are located along rivers of the White Cheremosh and the Black Cheremosh. Among the most significant cultural elements we can mention the Hutsul village of Marynchi stretched on the picturesque banks of the Cheremosh. The Hutsul church was built there in 1878, bearing the name of Simeon Stolpnyk. The temple is considered a typical example of the works of Hutsul wooden architecture. Quite interesting is also the church in the village of Dykhtynets, which was built in 1871 with completely unusual forms for Bukovina and Hutsul region in general.



Hutsul wooden architecture ©http://static.iloveukraine.com.ua/p/0/83/83180/bfe8754f40efeba6d346432e2c89ffb8_600x1000.jpg

The Cheremosh is a sacred river of Hutsuls, which connects their land with all of Ukraine, and then - with the whole world. After all, its waters flow into the Black Sea. And they flow from the hills of Palenysia, Komenova and Komen, which in their form are really like the chimneys of Hutsul furnaces. The origins of these names have not been traced back yet. Hutsuls call the river Cheremosh the True Son of the Carpathians, who is born in the mountains, lives and also dies here among them, falling into the river Prut. According to pagan beliefs, the White Cheremosh carries its waters from the world of "Pravi" - the world of good gods. The Black Cheremosh comes from the world of the "Navi", the dangerous place of the spirits of the Underground. The Cheremosh is capricious and unexpected, like the Carpathian summer. It flows calmly, combining innumerable mountain tributaries and then surrounded by steep banks, stone rapids, deep slopes and wooden bridges, it briskly turns its snake-like body back on itself.

The main economic activity in the territory of Cheremosh watershed is the traditional land use of wet and humid grasslands, such as production of hay, sheep and cow grazing, gardening, especially the cultivation of apple trees. The biggest effort of local population is aimed at growing fodder for large and small cattle. Landscape development and related cultural aspects depend a lot on water resources. Collection of medicinal plants was common; the plants were used for healing the body as well as for spiritual rituals ("molfars").



"Bokorashi" – traditional way of timber transport ©<http://vsviti.com.ua/nature/25399>

Rafting was a traditional way of timber transport. Nowadays, rafting on the Black Cheremosh River attracts thousands of tourists annually. It is very popular and there are numerous tours organized by local tourist organizations. Rafting is organized on the White Cheremosh as well.

Rural tourism (agrotourism or green tourism) is quite common in this territory; in addition to this, local people sell handmade products and treat tourists to a delicious local cuisine, which is closely linked to traditional farming and sheep breeding. Cheremosh Fest is eco-tourism festival that takes place each July. The mission of "Cheremosh-Festa" is the protection of the Cheremosh River in its natural form.

A number of folk songs are linked to the beauty of the Cheremosh River and the surrounding landscape. Hutsul dialect of Ukrainian language is the most authentic one. The Cheremosh River region is one of the centres of its current existence and development.



Rafting on the Black Cheremosh River ©Bohdan Prots



Cheremosh Fest © https://ua.igotoworld.com/en/eventPage/1247_cheremosh-fest-2015.htm

Four kilometres below the village Usteriky, there is a village called Ust-Putyla. Almost in the very centre of the village, close to the tributaries of the Bivkiv and Putyla, there is a 30-meter tall rock resembling a person's figure.

The legend has it that in ancient times, there lived an evil landlord lady, who owned the forests, mountain valleys and everything that could be seen. One day she met a poor widow who asked her for an alms. That made the landlord lady angry and instead of giving her alms, she threw a stone at her. In response, the widow said: "And for that you become a stone!" And a miracle happened: in the eyes of the astonished inhabitants of the village, the landlord lady became a solid rock and remained forever standing by the road. Since then, this rock has been popularly called the Landlord Lady Stone Bagache (locally called "Bahachka").

One of the many folk legends and stories was transformed by a historian and play writer L. Novytskyi to a play "Kamyana Bahachka" (Stone Landlord Lady), which was successfully played in many theatres of Ukraine.

In the village of Marynichi, under the right bank of the Cheremosh River, there is a 3 x 5 m big sandstone geological monument - the Frog Stone. As the legend says, this Stone fell from the mountain top, where the government army pursued people's avengers ("oprishky"). The river water level rose and blocked the further progress of the army.

There are two more candidate wetlands in this region for the status of internationally important wetland: **the Headwaters of the Prut River** and the **Pohorilets Headwaters**.

The area of "Prut Headwaters" and "Pohorilets Headwaters" belongs to the Carpathian National Nature Park and is located in the Nadvirna district of the Ivano-Frankivsk region. The upper parts of these sites are located on the border of Ivano-Frankivsk and Transcarpathian regions. The area of the Prut Headwaters corresponds with the border of the upper Prut River catchment area (1 000 - 2 061 m a. s. l.).

It is a historic border area of former Austro-Hungarian Empire parts. This site belongs to the most visited nature destinations in Ukraine. Chapels and traditional houses manifest inhabitation of this area in the past. The area of both sites is deeply related to an ethnographic nation of Ukraine and Carpathians, the "Hutsuls", their traditions and customs. There is a high quality water source for millions of people living downstream.



Prut Headwaters ©Bohdan Prots



Upper Prut headwaters and bog ©Bohdan Prots



Headwaters of the Prut River ©<https://kamendvir.com.ua/articles/124929>

The **Headwaters of the Prut River** site is a high-mountain post-glacial complex of peat bogs and lakes in the foothills of the Chornohora ridge. One of the main rivers of the Ukrainian Carpathians, the river Prut springs here. Similar character of the **Pohorelets Headwaters** is formed by humid and excessively humid habitats, stream and brook banks, boggy sites, in higher altitudes of beech and spruce forests. Subalpine and alpine zones of the Chornohora mountain range with a dense network of streams, brooks, bogs and lakes, meadows with a diverse plant layer, shrubs, raised bogs, pools of different types including temporary ones can be found here. There is a high concentration of endemic Carpathian species of different groups of biota and types of relics of the post-glacial period.

The Prut River (previously called Pyretos, Poras) is mentioned in many historical records and it was also known by the ancient Romans. The Prut basin contained old Ukrainian (Galych kingdom) towns in the 12th century. At the end of the 14th century, the town of Romaniv Torh (now the town of Roman) existed on Prut banks. In the Slavic-Moldavian chronicles of 1470, the victory of the governor of Stefan the Great over the Tatars near the village of Lypnyk (in the upper parts of the Chugur River) is mentioned. Several Moldovan cities - Prut, Chrolov (later Hirleu), Brady (later Tsetsora), Bakhlyi and others - were observed on the 16th-century maps in the Prut basin. In 1513, Tatars passed through the Prut; in 1518 the Crimean Sultan Albul, whose army was destroyed and partly sunk in Prut by Stephen IV; in 1581 the Crimean Tatars again burst here; in 1563, Polish Prince Dmytro Vyshnevetskyi passed through the area; in 1594 Ukrainian cossak atamans, like Severin Nalyvayko and Loboda were active along the Prut River; in 1621 Sultan Osman II was defeated under Khotyn by Polish-Ukrainian forces; in 1653, on the banks of the Prut, the son of Bohdan Khmelnytskyi, Tymish Khmelnytskyi, was deadly wounded in the battle with the army of Moldova, etc.

The agriculture in the territory is confined to the production of hay, sheep and cow breeding and gardening. Local population grows fodder for large and small cattle at small scale.

Medicinal plants of this area are used for the production of teas and tinctures, which are then sold to tourists.

The highest mountain of Ukraine, Hoverla (2 061 m a. s. l.) partly stands in the area of the protected area, which is of an important social and touristic value. Mount Hoverla and the river Prut belong to the most visited places in the Ukrainian Carpathians (up to 0.5 million people per year visits the wetlands).

The territory of Pohorilets Headwaters is located at the southwest borders of the Carpathian Biosphere Reserve. It is important for environmental education, recreation and scientific research. Part of the second highest mountain of Ukraine, Pip Ivan can be found on its territory. At the top of the mountain, there are ruins of a unique astronomical observatory that attracts tourists. Thanks to a favourable climate and the presence of softly cultivated landscapes, this part of the land is very popular among tourists. In order to get acquainted with natural ecosystems and geological and geomorphological attractions, a wide network of ecotourism routes is created here: botanical, zoological, geographical and landscape. Both regulated and unregulated tourism is developing during the summer period.

Both sites mentioned above belong to the most important research areas of the Carpathian Highlands. Ecological, biological and geographical research and monitoring of biotic diversity are carried out by specialists of the Carpathian NNP, scientists of the Ivan Franko Lviv National University, the Institute of Ecology of the Carpathians and the State Natural History Museum of the National Academy of Sciences of Ukraine, as well as the Institute of Evolution and Taxonomy of the Academy of Sciences (Krakow, Poland) and the Jagiellonian University (Krakow). The existing field research station of the Institute of Ecology of the Carpathians of the National Academy of Sciences of Ukraine and the meteorological station are situated there. Communication, education and public awareness activities are aimed at raising the level of environmental culture, environmental awareness of the public and the local population through dissemination of environmental knowledge using media, social advertising, nature museums, libraries, video collections, seminars, round tables, conferences. Massive environmental and educational events are organized, permanent and traveling exhibitions, ecofoodstands, photo albums are created. Thematic lectures and excursions are held. Awareness and education is provided by the employees of the environmental education department of the Carpathian NNP.

A number of folk songs are linked to the beauty of the Prut River and the Pohorilets River, Pip Ivan Peak and the surrounding landscape. In the highlands, shepherds use one of the largest musical instruments, the trembita. Many artists like to make photographs and paint pictures of the mountains and the surrounding landscape.

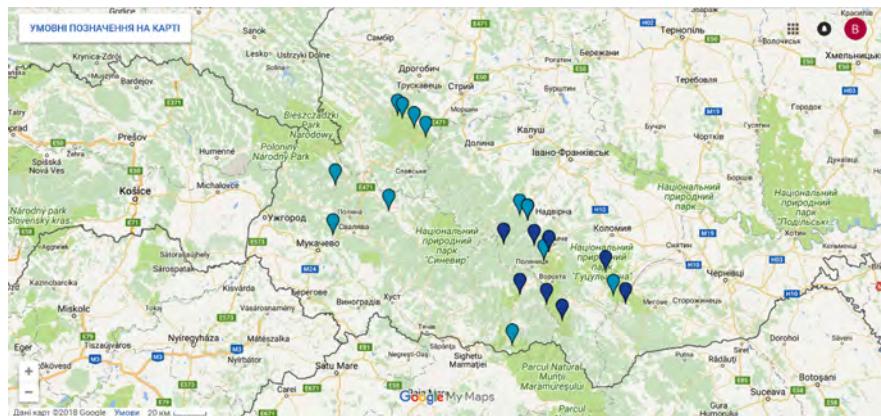
Legend of the river Prut

There was a boy named Prut who lived in a village. Once, as he went up the mountain, it got late and he decided to spend the night right there in the woods. He found himself a cosy little shelter under a tall fir tree. He fell asleep and dreamed a strange dream. An incredibly beautiful girl came to him; all dressed in green, and sang to him the sweet-sounding songs, gently stroking his hair. But as soon as he wanted to touch her she disappeared and he woke up. There was nobody around, only a branch of a green ribbon drifted from the wind. Prut was very fond of the beauty of the girl and decided to look after her. The next evening, he sat down again in the same place, under the same fir tree. But this time he only pretended to be asleep. It was already dark and he saw a beautiful girl coming towards him as if from the ground. As soon as she came to him, Prut jumped up, got hold of her and asked her who she is. At first, the girl was scared, but then she smiled and answered "Hoverla". After that night, Prut spent almost all the time in the mountains and went home very little. The boy and the girl loved each other. However, Hoverla was the beloved daughter of the king of the mountains, so she could not go down with her beloved Prut to the people of the village. As soon as her father learned about their love, he was very disheartened and cursed the girl. Hoverla was a very vulnerable girl, she could not accept it, and jumped down from the tall cliff. Immediately there arose a strong storm that ruined everything in its path. The following morning the sun came out and people stood in great surprise because there was a huge mountain at the end of the valley. Long searched Prut for Hoverla, until one day he went up the mountain and did not come back again. Nobody has seen him since. From that time on a river flowed down from the mountain, making its way between the rocks. People gave the name Prut to the river and the name Hoverla to the mountain.



An inventory of important **waterfalls** was elaborated in Ukrainian part of the Carpathians. These features are keystones of ecological trails with recreational, scientific, aesthetic and spiritual value as well as a good water resource.

Location of the 21 most important waterfalls of the Ukrainian Carpathians with natural and cultural heritage value are presented on the map and some of them are described below.



[©http://vididay.ua/news.php/news/119](http://vididay.ua/news.php/news/119)

The highest single-cascade waterfall of the Ukrainian Carpathians is **Yalinskyi waterfall** (26 m) in Rakhiv Mountains (part of the Marmarosskyi massif) on the Yalin brook (the right tributary of the White River).

Maniavskyi waterfall on the Maniavtsi River (the tributary of the Bystrytsia Solotvinska) is about 20 m tall waterfall in a picturesque valley in between the steep mountains in the Gorgany massif, within the Bogorodchany district of the Ivano-Frankivsk region.



Yalinskyi waterfall ©Ihor Zubrytskyi



Maniavskyi waterfall ©Daniil Shukhnin

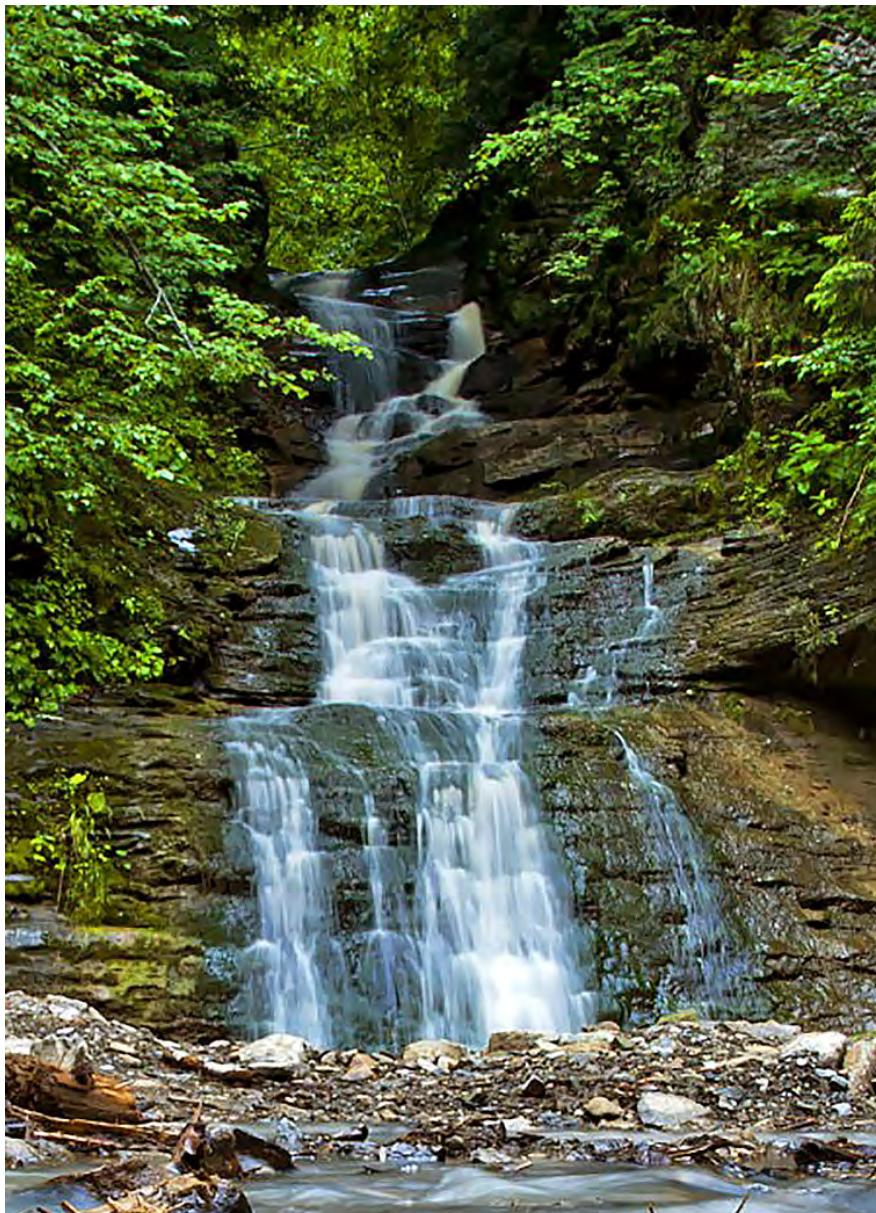
Laznyi waterfall is located on the stream of the Lazne (tributary of the Stryi). The height of the water drop is 10.5 m, the width is approximately 2 m. The waterfall consists of three cascades. It is formed in a place where a small mountain stream crosses a flysch massif. The waterfall is particularly picturesque when the flow is powerful, as well as in the winter when the cascades freeze.

Kamianka waterfall is located in the Skolivskyi district of the Lviv region, in the National Nature Park "Skolivski Beskydy". The height of the waterfall is about 7 m. It consists of one cascade divided by a rocky ledge into two streams, a hydrological nature monument.

Bukovynskyi waterfall is formed by a group of waterfalls (landscape reserve of local importance). It is located in the Pokutsko-Bukovynian Carpathians within the borders of the Putyla district of Chernivtsi region. Seven waterfalls of different power and height can be seen within the distance of 2 km: from 3 m to more than 18 m, which is a unique phenomenon of the Ukrainian Carpathians. These waterfalls were nominated to compete for the title Seven Natural Wonders of Ukraine and ranked ninth on the results of Internet voting.



Laznyi waterfall ©Mykola Veievoda



Bukovynskyi waterfall_Bukovynskyi waterfall ©Vitaliy Atamaniuk



Kamianka waterfall ©Rostyslav Hinda

Kudrynets waterfall is located on the Kudrynets stream, which is the right tributary of the Sitni River. It is formed in a place where a small mountain stream crosses a flysch massif. Total height of the waterfall is approx. 5 m, average width 3.5 m. Waterfall is very picturesque. It is unique in that the water in it falls by numerous low cascades resembling a staircase.

Number of churches, chapels and monasteries is located near the waterfalls. Many waterfalls are part of the pilgrim routes and ceremonies during religious holidays.

Waterfall trails are linked with the areas of developed rural tourism. It is quite common, local people sell handmade products, which are linked to traditional farming and sheep breeding.

Every waterfall is included in an attractive hiking path; some of them attracted 20,000 and more tourists per year. Shops with local products work actively sometimes nearby.

Number of folk songs is linked to the beauty of the many waterfalls and surrounding landscape. Almost every large waterfall is mentioned in a number of traditional songs.

Waterfalls attract photographers as well. Several films used waterfalls in their scenes.

Almost every waterfall has got its own **legend**, where love and friendship play important part. As an example, the legend on Shypit waterfall can be mentioned:

There were two families which once lived in the village of Pylypets. The richer family had a beautiful daughter Marichka; she was the pride of her parents. The beauty of the girl attracted many wealthy men. However, the heart can not be told; she loved a boy called Ivanko from a poor family. The lovers began to meet secretly at the foot of Mount Velykyi Verkh so that their parents did not find out about their love. There, only nature was witness of their dates. However, as it is impossible to hide a saw in the bag, the entire village spoke about their love and the rumours has reached the mother. One day, she followed her daughter and she witnessed their meeting. In anger, she cursed the young couple in every way possible. Suddenly, the sky darkened and it started to rain. The violent turbid streams picked Ivanko and Marichka up instantly and carried them to the ravine. At first, they held their hands, but suddenly the waterfall split their hands and threw them apart. Mother of the girl, who witnessed a terrible tragedy has since use to come to the waterfall every day. Until the holly night on Kupala (ancient believe) she heard her daughter's voice whispering to Ivanko. A shocked, burnt mother shouted: "Do you hear a whisper? They whisper among themselves". Since then, the waterfall has been nicknamed "Shypit".



Shypit waterfall ©Sergiy Leonov



Kudrynets waterfall ©Oleg Berezovskyi

Grasslands and peatlands

The presence of **wet grasslands and peatlands** is a typical manifestation of Carpathian habitats and its adjacent area diversity. These habitats are historically interconnected with agricultural practices; they were scythed and grazed in the past. From biodiversity point of view, they can easily lose their value if left neglected.

As an example a **Protected Site Chmúra** in Kysuce region (in the northwest of Slovakia) can be used. Special Area of Conservation Chmúra (Site Code: SKUEV 0289) is a result of natural processes in the past which were related to the beginnings of settlement of Kysuce and its use for agriculture. Grassland scything to obtain animal bedding was typical, as this is the area of strongly waterlogged fens. Flysch bedrock rich in minerals together with strong alkaline springs create conditions for existence of fens with higher alkaline content.

From the non-forest habitats of European importance there are habitats of Hygrophilous tall-herb fringe communities, continental tall-herb communities of humid grasslands dominated by meadowsweet (*Filipendula ulmaria*). From nationally important habitats there are Eutrophic humid grasslands of mountain and sub-mountain areas at the edge of fens⁶. There was a stream running through the site Chmúra I. previously, however, it was redirected in order to increase the management effectiveness of the area. It now runs along the border of this area in east-south direction. The hay with sedge and horsetail was mostly used as bedding. Grasslands were scythed later on (after yielding the fodder from richer grasslands), which helped to maintain their species diversity – even later flowering species, such as marsh hellebores or marsh fragrant orchid, managed to seed. Nationally important plant species, even though not being the primary reason of protection, are important for biodiversity and habitat quality, and these are in a relatively good shape. Many of them are of rare occurrence in the region (*Hippochaete variegata* or common butterwort *Pinguicula vulgaris*).



⁶ Pietorová, E. 2017. Program starostlivosti o CHA Chmúra. ŠOP SR Správa CHKO Kysuce, Ms.

⁷ L. Ohryzková a M. Popelářová, 2011: Chráněná území v CHKO Beskydy, Co skrývají luční památky a rezervace. ČSOP Salamandr, Rožnov pod Radhoštěm, 20 pp.



Protected Site Chmúra ©Eva Pietorová

It is interesting that this protected area is located within the **open air museum of Kysuce village** (Múzeum kysuckej dediny) in Nová Bystrica, which is frequently visited by tourists from all over the world. The wetland has a great potential for environmental education, not only as an area of European importance with valuable habitats and species, but also as a typical example of landscape management within historical exposition of folk architecture in the nature. Forest educational trail leads around the area Chmúra II.

Interesting wetland sites can also be found in the open air museum Valašské muzeum v přírodě in Rožnov pod Radhoštěm (Beskydy, Czech Republic).

Humid Carpathian grasslands were a source of **medicinal plants** for ages. Locals used to collect round-leaved sundew for example at peat grasslands belonging to todays **Nature Monument Poskla in the Protected Landscape Area Beskydy** in the Czech Republic. The fact that this wetland was used by locals as a „pharmacy“ proves an old custom of planting traditional Wallachian herb bogbean *Menyanthes trifoliata* (also called “bitter ribleaf” because of its taste or “trifoliate” because of its looks).⁷



Protected Site Chmúra - *Gymnadenia densiflora* ©Zuzana Václavová



Drosera rotundifolia ©Archive SNC SR



Museum of Kysuce village ©Zuzana Václavová



Menyanthes trifoliata ©Jaroslav Košťál



Josefovské louky - Josefov Meadows Bird Reserve ©Břeněk Michálek

As the number of managed wet grasslands and wetlands in the PLA Beskydy decreases, there starts to be still a greater effort made to restore the diverse and viable landscape through -restoration of wetlands, orchards with traditional fruit tree varieties, pastures and pasture woodlands. Also traditional sheep breeds, so called valašky, are used for grazing. Traditional grazing also contributes to the return of orchids by creating suitable environment. Unlike today, this area used to be covered by orchids. However, the sites, being neglected, overgrew by self-seeding and fast growing trees, especially by spruce. Many of the sites are now in the care of non-governmental organisations (e.g. the site near Velké Karlovice restored and managed by the NGO Coalition for Rivers)⁸.

⁸ <http://www.koaliceproreky.cz/tradicni-sady-mokrady-i-ovce-se-navraceji-do-krajiny-beskyd/>

Similar development and dependency of managed wet grasslands (rich in biodiversity or rare communities and their species) on regular human maintenance can be found in every part of the Carpathians, as well as outside of them. **Josefovské louky - Josefov Meadows Bird Reserve** in the east of the Czech Republic (near the town Jaroměř) can be presented as an example of grassland management that supports and benefits the nature protection.

The site provides a model of wetland wise use, demonstrating application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland.

Building of the irrigation system based on the river Metuje with 110 km long network of channels started in 1902. It uses the power of gravity and is protected according to Královéhradecký kraj County Decree. It is probably the only original irrigation system functioning in the area of the whole Czech Republic until now. It is now used for the needs of nature conservation.

The main beneficiaries are farmers who benefit from higher production of meadows due to the existence of the historic irrigation system.

This non-state reserve of the Czech Ornithological Society (Česká společnost ornitologická, ČSO) lies northeast of the Josefov Fortress. Since 2006, this organisation safeguards the environment suitable for waterfowl and other water-bound species. Restoring deep pools, bringing the water to areas by repaired historical irrigation system and reduction in vegetation cover lead to nesting of rare, threatened or elsewhere dramatically declining bird species (e.g. common snipe *Gallinago gallinago*, northern lapwing *Vanellus vanellus*, water rail *Rallus aquaticus*, spotted crake *Porzana porzana*). Up to 2017, over 160 bird species were observed here, annually spotted common crane *Grus grus*, or wintering rare owls (short-eared owl *Asio flammeus*). Area saturation with water supported a great abundance of amphibians. Marsh frog (*Pelophylax ridibundus*) and common frog (*Rana temporaria*) can be found here. Species like common toad (*Bufo bufo*) and European green toad (*Bufo viridis*) or European fire-bellied toad (*Bombina bombina*) can also be found, even though rarely. Abundant numbers of northern crested newt (*Triturus cristatus*) and smooth newt (*Lissotriton vulgaris*) can be spotted. Wetland restoration had a positive effect on diversity of dragonflies, beetles and other animal species. The world's biggest water beetle *Hydrophilus piceus* was found here as well. The Bird Park is open to public. There is an educational trail, observatory and excursions are organised as well. Area of 76 ha is being gradually purchased by the Czech Ornithological Society for the money kindly provided as gifts.

South part of the park is brimmed by Nature Monument Stará Metuje, the channel of which as well as the surrounding area has been designated as a site of European importance for dragonfly species green snaketail (*Ophiogomphus cecilia*). This species requires relatively clean water, gravel-sand streambed and a natural character of the river. Over 30 fish species were recorded in the Metuje River, as well as European beaver (*Castor fiber*) and Eurasian otter (*Lutra lutra*).⁹

Conservation implication of cultural values and practices on the wetland is that due to area saturation with the irrigation system Metuj, suitable living conditions for wetland fauna and flora were created.

In 1902 there was an organisation called Central Water Management Company Metuj established with its residence in Krčín (today a part of the town Nové Město nad Metují). Its aim was to build a grassland irrigation system to safeguard higher grassland yields. This construction, built during the years 1902 - 1912 between Krčín and Josefov, has represented a very important water management construction with its 110 km long network of channels. Physical work was done by builders from Austro-Hungarian Empire and the engineering mostly by Italians.



Josefovské louky-Josefov Meadows Bird Reserve ©Luděk Klíž



Josefovské louky-Josefov Meadows Bird Reserve ©Luděk Klíž

Original area covered by irrigation channels was 1007 ha and it spread on both sides of the Metuje River. The construction was equipped with necessary number of hatches, tailboards, siphons, bridges and mini-aqueducts. The project had been finalised during the years 1930 – 1932. An approval for water collection in order to run the irrigation system ceased in 1999 for lack of interest from local agricultural stakeholders. New approval was gained by the NGO in 2012.

Josefovské louky, as the first and only bird park in the Czech Republic, is becoming still more searched for place by nature lovers from the whole country for its birdwatching and recreational opportunities. Visitors from Prague or Morava region are still more common. Some of them stay few days longer and visit the Josefov Fortress situated right at the edge of the reserve or other places of interest. This brings financial income to the county of Královéhradecký kraj. Bird park project has a potential to multiply the visitors numbers in the future and therefore it is necessary to support its development. Its existence contributes to environmental education and awareness rising among public. Famous Czech writers Božena Němcová and Jaroslav Hašek were both inspired by these wetlands and used to stay at this place at certain times.

ČSO carries out various types of management here, especially that aimed at supporting the life of waterfowl: creation of pools, regular irrigation, tree cutting, ungulate grazing, denudation of original surface, water sustainment, etc.

⁹ [https://cs.wikipedia.org/wiki/Josefov_\(Jarom%C4%9B%C5%99\)](https://cs.wikipedia.org/wiki/Josefov_(Jarom%C4%9B%C5%99))

The proposed Ramsar Site **Daffodil Valley** (*Narcissus Valley*) belongs to the most beautiful areas of Transcarpathia in Ukraine. There is the world's largest array of natural growth of narrow-leaved narcissus (*Narcissus angustifolius*), a rare plant listed in the Red Book.

The Daffodil Valley is located near the village of Kireshi, only 4 km from the city of Khust. An area of ancient terrace of the Tisa River in the floodplain of the Khustets River is protected. It lies at an altitude of 180 - 200 m, in the northwest of the Khust-Solotvynska Depression. Along the natural watercourses there also are artificial canal reclamation structures.

It is a historic area of high cultural diversity, located close to the border with Romania and Hungary. Remainders of the area's history include monasteries, churches and buildings with special architectural features. Ethnographic diversity is shown in the variety of traditions and customs of mixed Ukrainian, Romanian and Hungarian ethnic groups. It is a popular travel destination.

The Khust Department of the Carpathian Biosphere Reserve operates and runs its research and conservation management here.



Daffodil Valley (*Narcissus Valley*) ©<https://we.org.ua/malovnychi-kutochky-ukrayiny/zakarpatska-oblast/dolyna-nartsysiv/#jp-carousel-1947>

Morphology of the Daffodil Valley is related to the events that took place during the Ice Age. Great amount of water from molten ice flowed from the mountains and contributed to naturalisation of the narrow-leaved daffodil. Over the time, the area was covered by oak trees and was vigilantly guarded as a nature reserve during the Austro-Hungarian Empire.

There grew a large number of medicinal plants of high value to pharmacists and local physicians who used them to treat the patients. When the territory of Transcarpathia was submitted to Czechoslovakia, some of the land was sold to Khust inhabitants. Locals treated this area with respect and understanding. They grazed cattle on protected lands. But after the land owners began to manage the land based on economic profit, the area of the Daffodil Valley had decreased. During the Soviet era there was a plan to cultivate the land and to grow crops and as much as 50 hectares of the site were destructed. Only after then the remaining area was included into the protected area of the Carpathian Biosphere Reserve. In the 1980s, drainage activities were carried out on the territory of the reserve and as a result the vegetation was changed substantially. Professor V. I. Komendar (who, in fact, named this valley), made a significant effort to preserve and restore the Daffodil Valley. The centre of environmental education "Daffodil Museum" was opened here. It presents a unique flora and fauna of this valley and a history of its preservation.

Archaeological excavations realised in the area of the city and wider region revealed the inhabitation of this area during the Paleolithic and Mesolithic period. Excavations conducted in the Khust region revealed several remnants of the so-called culture of the Carpathian burial mounds. This is a culture of one of pre-Slavic groups living in the Carpathian and Transcarpathian regions in prehistoric times.

There are few churches located in the area close to the Valley. There is Church of St. Elizabeth in the city of Khust dated in the 14th - 18th century. Today, it is a functioning temple belonging to the Greek Catholic community of the city. Roman Catholic Church of St. Anne is built there, the first written record of the Roman Catholic parish dates back to the 14th century. It is said that the source of building material for the temple was the ruins of the Khust castle.

The Daffodil Valley belongs to the 100 wonders of Ukraine and has a great aesthetic value. In May, during the flowering period, the valley becomes a white carpet of daffodils. It is visited by more than 10,000 tourists annually. There are traditional secular as well as religious events organised, including the **Daffodil Festival**.

The legend tells us that it was in the waters of the Khustets River, which were as clear as a mirror, where the Greek god Narcissus saw his reflection. He fell in love with himself and died of anguish there on the river bank.

According to another legend, there once lived a prince, princess and their beautiful daughter Rusya in the Khust castle. On the outskirts of the city, there lived a potter called Ivanko. On the day of Rusya's birthday and celebration of her adulthood, a lot rich visitors arrived to the castle. Ivanko had also made a gift for Rusya. It was a vase, on which the flowers of graceful white daffodil were shimmering, as if alive. As he gave her this present, Ivanko and Rusya fell in love with each other. They started meeting up in the picturesque valley. One day Rusya's father learned about their love and seized Ivanko's vase throwing it from the mountain in anger. The vase crashed against the rock and crumbled along the valley. At dusk, the valley was covered with a white-green daffodil carpet.

Another legend tells us that the origin of the unique Daffodil Valley is related to the history of the "Nankivska" miraculous icon of the Blessed Virgin ("Nankivska" icon linked to the village of Nankovo). According to this legend, an image of the Virgin Mary has appeared in August 1690 in the village of Nankovo, in the area called Polyany. Local community turned to the owner of the field, where the incarnation took place, with the proposal to build a temple or a chapel on this place, as required by the Christian tradition. The landowner refused to agree. The icon was therefore placed on a cart and was supposed to be driven out of the field. But the animals could not move for the icon did not want to leave the chosen place. The owner had to use whips to move the animals, but, allegedly he hit the icon with it. Tears started running from the scar made on the icon. For the sacrilege, the family of the landowner was punished in generations. The icon was driven along the valley of the river Khustets and according to the tradition, daffodils started to appear, copying the track of the cart.

It is also said that when enemies seized the Khust castle, inhabitants of the city brought them a gift, pillows filled with daffodils, ostensibly as a sign of obedience and respect of the winners. The enemies were not aware about the poisonous powers of the daffodil and so, having fallen on a "daffodil" pillow, they did not wake up anymore.



Church of St. Elisabeth ©<https://commons.wikimedia.org/w/index.php?curid=13248761>





Sivá Brada ©Milan Barlog

Some of rare Carpathian wetland areas are listed as part of the UNESCO World Heritage Site. An example of such a case is the wetland **Sivá Brada** in the Hornád Basin (Levoča District) in the northeast of Slovakia, which is part of the World Cultural Heritage property Levoča, Spišský Hrad and the Associated Cultural Monuments. This travertine mound with its adjacent area is a National Nature Reserve (1979) and part of the site of European importance Spiškopolodhradské travertíny (Site Code: SKUEV0105) together with the site Hradská lúka, which is of similar character and importance. Travertines of a nearby hill Dreveník make up the largest travertine area in Slovakia. The site represents a model of wise use of wetlands, demonstrates an application of traditional knowledge in management and use of the area, which maintains the ecological character of the site. The site also harbours exceptional cultural monuments, records and proofs of long past settlement, which influenced the ecological character of the wetland.

Grasslands of this area had since long ago been mown with an aim to wisely manage their water regime. Mineral water was used in nearby spas (which ceased to exist in 1980s) and by locals and visitors who came to collect it as a



Sivá Brada ©Jaroslav Košťál

drinking water from springs suitably adapted for it. Currently, there are efforts made to restore wet grasslands' traditional management; the springs are not been used. The Calvary is being used by the visitors, tourists and believers and during regular events also by municipality. Material value (building of the chapel, former spa, mineral water pipelines' remains, and managed spring areas) are clearly seen in the area from the time of their origin. Intangible character of this place was discovered only later on in 2002 based on the work of the Slovak Environment Agency in Banská Bystrica within the elaboration of the "landscape characteristics of the regions of Slovakia".

The St. Cross Chapel at Sivá Brada (Kaplnka sv. Kríža na Sivej Brade) was built in 1675 as part of one of the oldest calvaries in Slovakia. At that time this region run so called "Passion plays", which ceased to exist after dissolution of Jesuit Ministry in 1773. Simultaneously, Jerusalem analogy ceased with it and was newly re-discovered in 2002. Currently there are efforts to restore the use of Spišský Jeruzalem (Spiš Jerusalem), this, however, has no significant influence over the wetland habitats.

Management of wetland habitat is done by Administration of the Slovenský raj National Park, competence of which stretches up to this area. It has managed a small wetland area for a long time and in the last few years it managed to take on much wider wetland area as well as a part of adjacent area. The plan is to continue with the enlargement of the management area until it covers all the farm land.

Carpathian countries are rich in **springs, mineral, thermal and healing waters**. From ancient times, these sources attracted people not only by their therapeutic properties but also by their spiritual element, for life depends on water. Many of them are natural attractions and are well preserved. Others are used commercially and are being filled into bottles for sale. Some of them are used only by local communities and occasional visitors. Others are used for medical and health treatment purposes and famous spas were built around them. For example, on the territory of the Ukrainian Carpathians there is about 470 mineral water springs. The amount and diversity of mineral and thermal springs in the area of current Slovakia has taken interest of Slovak polymath and scientist Matej Bel (1684 – 1749) already 300 years ago. Currently, there is about



"Roman bath" on travertine mound near Dudince Spa (Slovakia) ©Ján Kadlecík

1600 springs registered in Slovakia. They differ by chemical content, capacity and temperature. The highest abundance of springs is found in the area spreading like a belt through the Carpathians, from the towns Bardejov and Prešov, through Popradská kotlina Basin, Liptov and Turiec region, to Strážovské vrchy Mountains up to town Trenčín. High density of springs is also registered in the valley of the Hron River from its spring up to town Zvolen and in the west part of Slovenské Rudohorie Mountains.¹⁰ Many of them are in protected areas.

Carpathian springs inspire many fairy tales and legends.

¹⁰ <https://domov.sme.sk/c/7584098/slovensko-ma-1600-pramenov-pozrite-si-mapu-znamych-lokalit.html#ixzz56SYmskto>



Ramsar Site Domica – Baradla ©Jozef Klinda

Subterranean karst wetlands

Underground karst wetlands represent a specific group of Ramsar sites in the Carpathians.

Transboundary Ramsar Site **Domica – Baradla** is the intermittently active hydrological system on both sides of the Slovak-Hungarian state border (within Slovak Karst National Park in Slovakia and Aggtelek National Park in Hungary). This cave system is also component of the transborder World Heritage Property Caves of the Slovak and Aggtelek Karst (since 1995) and is included in Biosphere Reserves. Domica cave was discovered by Ján Majko in 1926. It was open for public access in 1932 and it was already fitted with the electric lighting. Archaeological excavations revealed the presence of prehistoric man in the Baradla Cave in 1876. The most important archaeological sites are in the Baradla-Domica Cave System with remnants of Bükk culture settlement both inside and outside of the cave and with its charcoal drawings unique to Central Europe.

The site is popular with tourists as an educational trail of both natural and cultural value. More than 100,000 tourists visit the site annually, for which tours and study trails, as well as hotels and campsites, are available. A boat trip on the underground river Styx is available during suitable hydrological conditions as part of the guided tour of the cave.



Ramsar Site Domica – Baradla ©Michal Rengevič

The area belongs to sites with long-term ongoing archaeological and historical research, but also geological and biological research.

In Domica cave, there are unique charcoal paintings in its Dome of Mysteries, which is entered through the Sacred Hall, a crevasse resembling female bosom. This whole area is considered a prehistoric sanctuary, where an unknown religious act was practiced. However, it is also possible that the area of the hall was used by farmers as a stable.

An entrance hall of the cave holds a permanent exhibition of cave's archaeological findings. During guided tour of the cave visitors learn about life of Neolithic man who inhabited this cave.

The caves Domica - Baradla have for several times provided a short-term refuge to the oldest Neolithic population of the current southeast Slovakia and eastnorth Hungary, who were the creators of so called Gemer linear ceramics. Caves are known as a home of Bükk culture from 5th millennium BC. Post holes from housing objects and fireplaces were discovered at several places. Many archaeological artefacts, including the pot of Bükk culture buried in sinter, were found there. At the back of the cave there are well-preserved charcoal paintings (Sacred Hall), presumably, these were the sacred and cult places.

The importance of the karstic springs was recognised by local people already in the Middle Ages. Energy of the springs has been utilised in different ways, from ore crushing to grain milling. Even electricity was generated in the first half of the 20th century by water of the Jósava spring, thus creating public lighting in Jósvafő and later in the Baradla Cave in Hungary.

Domica cave was designated a Protected Nature Monument with a specified buffer zone in 1972. In 1996 it was designated a National Nature Monument by a Governmental Decree. Its today's buffer zone was designated in 2005. It was the archaeological evidence and its relation to Neolithic population that contributed to enlisting the cave on the list of the most important caves of Slovakia. Any archaeological findings from the cave are duly documented and are part of collections of the Slovak Museum of Nature Protection and Speleology in Liptovský Mikuláš.

Because the original entrance to the cave was blocked in prehistoric times, all the evidence of human presence stayed naturally conserved until its discovery in 1926. Based on the many archaeological findings, especially ceramics, ground (rock axe, sledgehammers and wedges) and cleft (knives, scrapes) rock or bone (bodkins, dubbing tools, and combs) tools we know that prehistoric people had settled in different parts of the cave during several phases. They used the cave soil to make ceramics; they customised the area by building small shelters, fireplaces and terraces. They left impressive wall paintings on the wall of so called Sacred Hall.¹¹



Rock blades ©M.Oravec



Pots of Bükk culture ©M. Oravec

¹¹ Gaál, L. & Gruber, P. 2014. *Jaskynný systém Domica – Baradla; jaskyňa, ktorá nás spája, Aggteleki Nemzeti park Igazgatóság, Jósvafő, 512 s.*

Ramsar site **The Caves of Demänová Valley (Jaskyne Demänovskej doliny)** in the area of the Nízke Tatry National Park in central Slovakia (Liptovský Mikuláš District) includes the underground cave system as well as the most vulnerable surface part of the drainage area of the underground hydrological system.

This site represents only a part of the longest cave system in Slovakia. As the site is part of the Demänovská dolina valley with a large ski resort Jasná, there are also facilities for the visitors of the caves (hotels, smaller accommodation and catering objects).

The cave system is made of several mutually interconnected caves (Pustá jaskyňa, Demänovská jaskyňa slobody, Údolná jaskyňa, Jaskyňa pod útesom, Jaskyňa trosiek, jaskyňa Vvyvieranie, Demänovská jaskyňa mieru, Pavúčia jaskyňa and Demänovská Ice Cave - Demänovská ľadová jaskyňa). The two, Demänovská jaskyňa slobody and Demänovská ľadová jaskyňa are partly open to public. There are also several other caves which genetically relate to this cave system, such as jaskyňa Beníková, jaskyňa Okno, jaskyňa Štefanová and others.



Demänovská Cave ©Pavol Staník



Demänovská Cave ©Pavol Staník

The Okno Cave is a long known cave. It is mentioned in the literature sources from the 1st half of the 18th century. Palaeontological findings were discovered here during research and ceramic fragments were found during the reconstruction of the area in front of the cave. This ceramic was identified as belonging to Baden culture from the times of late Stone Age.

An abyss-shape of the Pustá cave opening was known from earliest times. Several tens of both animal and human bones were found here during speleological research carried out in the 20th century. Based on the expert opinion, anthropological remains belonged to at least 4 individuals, two men, one woman and one adolescent. Due to lack of archaeological evidence it was impossible to date these objects.

The site also comprises a water source (from the cave Vyvieranie), which feeds the karst underground water into water supply network of the town Liptovský Mikuláš.

Natural potential and richness of this area makes it attractive to many visitors and the tourism is well developed here. Part of the underground wetland (including underground river Demänovka) can be visited within a guided tour of Demänovská jaskyňa slobody. Visitors are informed about values and character of the site. The remaining parts of underground hydrological system are not open to public, they are only used for speleological research. Many karst hydrological features can be seen on the surface as well, especially the ponors or exsurgences.

The area is being monitored in long-term for a wide scale of geo-scientific features, occurrences and phenomenons. Variety of publications and information leaflets, published under the name of SNC SR – Slovak Cave Administration, are available to public. They contain more detailed information on values and character of cave environment and its surroundings. The most comprehensive publication Jaskyne Demänovskej doliny¹² was published recently.

Several changes in legislation contributed to a better protection of cave system, e. g. designation of the Nature Reserve Demänovská dolina in 1929, designation of caves Demänovské jaskyne and their buffer zone as a Protected Nature Monument in 1972, designation of Demänovské jaskyne caves as National Nature Reserve (NNR) in 1996 and also designation of the new NNR buffer zone in 2009.

Demänovská jaskyňa slobody cave has been open to public since 1924. Guided tours are used for public awareness and educational trail was built there. The same applies to the Demänovská ľadová jaskyňa cave, opening of which is mentioned already in the middle of the 19th century. Lighting during the guided tour was safeguarded by use of fire torches and candles since 1930. After reconstruction works during the years 1950 – 1952 the cave was reopened with electrical lighting.

Several legends are connected to this cave system.

¹² Bella, P., Havíarová, D., Kováč, L., Lalkovič, M., Sabol, M., Soják, M., Struhár, V., Višňovská, Z. & Zelinka, J. 2014. Caves of the Demänová Valley. The Ramsar Site of the middle-mountain allogenic karts of the Western Carpathians Mts., ŠOP SR – SSJ, Liptovský Mikuláš, 200 pp.

Beldame

There is a beautiful Demänovská Cave in the Demänová dolina valley, which is also called "Dragon Cave". Up in the valley, above the water spring Vyvieranie, there is a lake, which is dry for a half year and then full of water for another half year. People have passed on following legend about it: there were two sisters living in the mountains. The older was called Mariena and younger was Anička. Mariena envied her sister for she had many handsome courtiers; therefore she pushed her into a lake, where she drowned. As a punishment, devil took Mariena into hell. There she pays for her sins for a half year and the other half of the year she keeps reappearing at the lake which then fills up with her tears.

Demänová

Long time ago there lived a six-headed dragon in the caves of the wild and beautiful valley. It killed everyone who dared to enter the valley. Demian, a young strong man, came one day, killed the dragon and discovered the beauty of caves hidden in the valley. As a token of thankfulness, villagers named the valley and the village after him - Demänová.

The well "Vyvieranie" in Demänová

It is said that by the well Vyvieranie there is an old, very long and wide underground hall connecting our country with other worlds. The lords from abroad have a lot of courage, but not a lot of money. Each year they come to Slovakia through this hall to search for the gold.

The Punkva subterranean stream (Ramsar Site of the Czech Republic) in Moravian karst has also its story which relates to abyss **Macocha**.

Folk legend is most likely based on a true story: there was a local widower who lived with his son; he married again and so the son got a stepmother (macecha). Her loathing towards the little boy was so intense that she lured him to forests and pushed him off the cliff down the abyss. The boy, however, managed to hook himself little above the bottom of the abyss, where he was found by the villagers who pulled him back up. Once they realised what had happened, they pushed the stepmother off the cliff in an act of punishment. Another story says that the boy managed to crawl out of the abyss himself and went back to the village. Stepmother did not get to know about it and before she was able to find out, she went to the abyss. She felt so broken-hearted from that horrible deed that she threw herself into the abyss.



Artificial wetlands and technological monuments

Historical technical water management work represents a special type of human-induced wetland. **Tajchy** (system of artificial reservoirs) make up a part of the UNESCO World Heritage Property Town of Banská Štiavnica and the Technical Monuments in its Vicinity.

Banská Štiavnica and its surroundings in the central Slovakia, in Štiavnické vrchy Hills is example of an important medieval mining area, where the ore was mined and processed since the Iron Age. This industry was kept up until the Middle Ages. Banská Štiavnica was the first mining town in Slovakia. Mines needed energy and it was necessary to extract and divert the water from them. **Tajchy**, out of the German word teich (lake), are artificially created lakes, which collected rain water. This water was then transferred into mines by network of artificially created channels and used there to run mining equipment. First tajchy were established in the 16th century, but most of them have their origin in the middle of the 18th century when the shafts were built still deeper and there was a need to extract still larger amount of water. Originally, it was human and horse power that was used to extract water. However, the deeper they dug, the more difficult it was and therefore a complex system of using the water energy was devised. Rain water was collected in artificial dams, which were mutually interconnected by channels. Water was then extracted from tajchy and delivered in the mine in accordance to present need. From more than 60 there are now only 24 left. Today they are used for recreational purposes.¹³ Some of them (tajch Klinder) are placed directly under the Banské múzem v prírode (Open Air Museum of Mining). Many legends and myths are being told, e.g. about the nix (waterman), who helped to repair the cracking tajch dam.¹⁴



Tajch Ottergrund ©Iveta Zvarová

¹³ Petro, J., 2017. Slovenské klenoty UNESCO. Albatros Media Slovakia s.r.o., 112 pp.

¹⁴ Červenák, J., 2014. Legendy Zlatého mesta. Príbehy a mýty Banskej Štiavnice. DAPHNE – Inštitút aplikovanej ekológie, 288 pp.



Hamora water smithy ©Yuri Krylivets

In Ukrainian Transcarpathian region there is unique “**Hamora**” water smithy, located on the Lyschanka River in the village of Lyschovo, Irshava district.

It is the only water forge functioning in Ukraine; it is about 300 years old, a historical monument of the 18th century. In 1947, the first power station was established at the forge, it provided light for 70% of residential buildings and the whole Lyschovo Street. The power station closed down in 1963, the forge is still functional, producing small agricultural equipment (e.g. shovels) or occasionally souvenir horseshoes for tourists.

Tourists are attracted by nature as well as by the craft. Up to 50.000 tourists visit the site per year.



Hamora festival ©Yuri Krylivets

The “Hamora” festival is held once a year on the last weekend of June in the hamlet of Hamora and its adjacent territory. This is cultural and art event, open to represent all areas of blacksmith art, professional and amateur folk groups, as well as individual artists willing to promote development of traditional folk art and popularise ethnic and cultural traditions. It is also creative competition for masters of blacksmith art and demonstration of creative abilities.

Number of traditional Boiko ethnic group settlements is located here.



Mountain lakes

Among the most valuable water and wetland habitats of the Carpathians there are **mountain lakes – glacial lakes**, or lakes created by landslides.

In the highest mountains of the Carpathians – in Tatras in West Carpathians there is about 135 mountain lakes. Modré pleso Lake (2192 a. s. l., 0.68 ha) is the highest placed lake. The largest is Morské oko Lake in the Polish part of Tatras (almost 35 ha). There are more than 200 glacial lakes in the East and South Carpathians in Romania. These natural lakes are also entwined with folk-tales speaking about their origin - the tears of sadness of a girl for her lover, water spilled out from an angel's jug – or about dwarfs, fairies and dryads living around them.



Štvrté Roháčske pleso © Jaroslav Košťál



Mountain lake in Tatras (Velické pleso, Slovakia) © Ján Kadlecík

The Red Lake (Romanian: *Lacul Roșu*, Hungarian: *Gyilkos-tó* – “Killer Lake”) is one of the most beautiful and emblematic lakes of Szeklerland, Harghita County, situated at an altitude of 938 meters in central region of Hășmaș mountain range in Romania. The lake was formed in the summer of 1837 when conglomerated mass of debris at the foot of the Ghilcoș mountain slipped and led to closing of the Bicaz Valley. Natural dam closed the creeks and helped water to accumulate. Flooded forest and rock face of Suhardul Mic mountain are part of lake's fascinating landscape. It is the largest barrier lake in the Eastern Carpathians, being 93 metres deep and about 12 hectares large. The name “*Lacul Roșu*” comes from reddish alluvia deposited in the lake by the Red Creek.

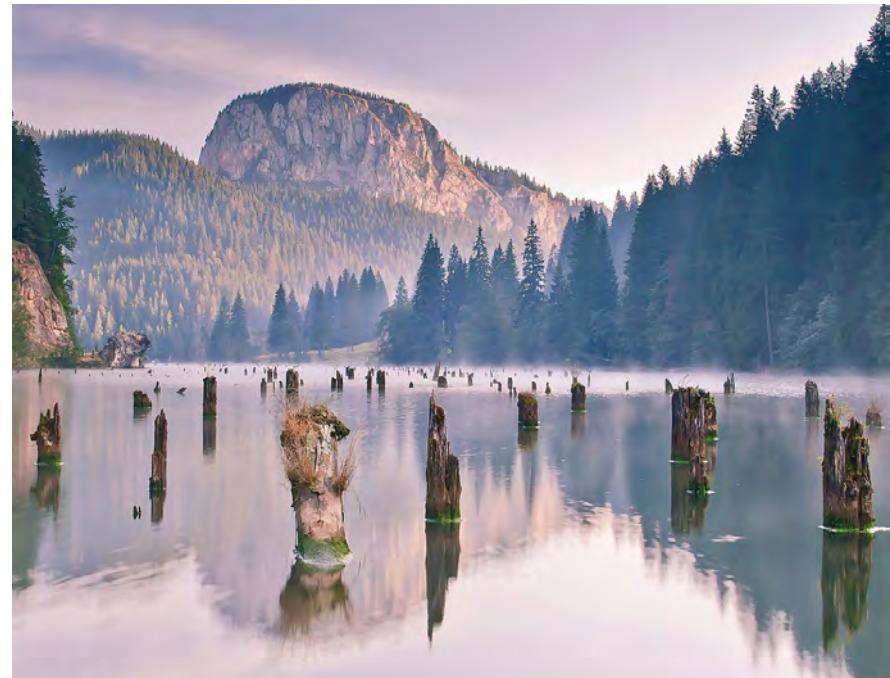
There are several **legends** inspired by lake formation.

The Red Lake legend

A long time ago there lived a long haired green-eyed girl. She was a rare beauty. She was called Eszter Fazekas. In the Gyergyó market Eszter saw a handsome lad and she immediately fell in love with him. He enlisted for a soldier and wedding did not take place. Eszter waited her love in vain. There was a wicked man called Allan, who liked the girl very much. Once, as he was passing by, he kidnapped her on his horse. He took her in the caves of Kis-Cohard Mountain. He promised her all the treasure in the world in return for her love, but Eszter was still waiting for her lover. Allan couldn't make Eszter to love him. She called on the mountains for help. The nature answered with a huge storm, trees were crashing, mountains were moving and the clouds burst out. In that storm the mountains destroyed everything that came in their way. Both Eszter and Allan were killed. And that is how the Red Lake was formed.

Even now, if you look carefully, you can see Eszter's deep green eyes.

After the year 1857 this beautiful place became a touristic point for many people that were attracted by the lake's natural beauty and rich flora and fauna.



Lacul Rosu ©<http://www.visitgheorgheni.ro/hu/Szabadido-to-Gyilkosto/Gyilkosto-u19313.html#sthash.Fd8BQMYD.dpbs>

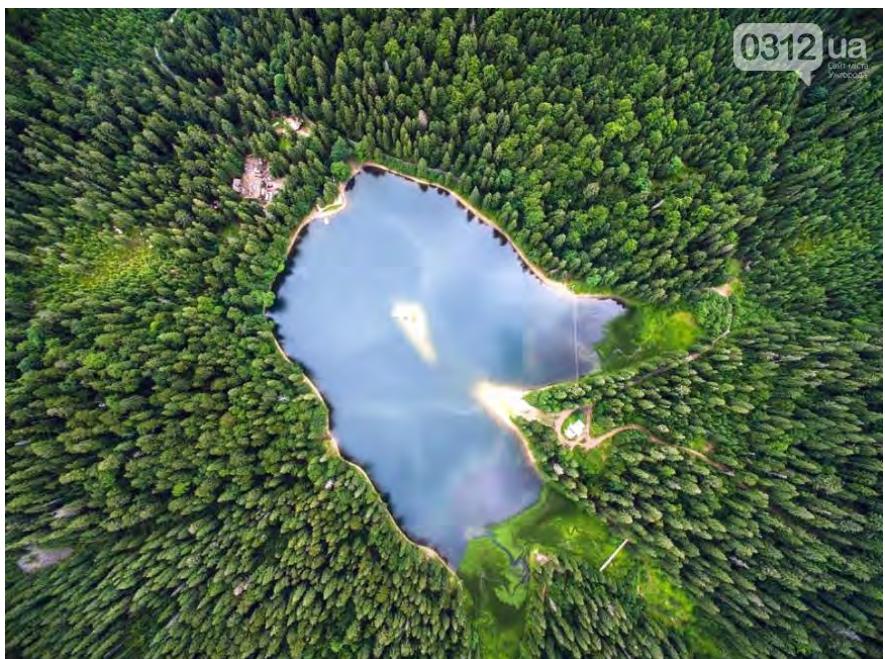
Another legend was noted by Urmánczy Nándor. He memorised a story told by an old Szekler man. According to the legend an outlaw used a cave of Suhardul Mare massif as a hiding place. He then stole beautiful Ferenc Anikó from a fair in Ditrău and dragged her along to his hiding. The girl begged and implored the cave ghost for help, when suddenly, the rock walls opened and she escaped. When the robber came around, he banged the cliff with his bludgeon so powerfully that the mountain collapsed and closed the valley burying the outlaw.

In the course of the years several variants of the legend appeared. Popular belief connects the words “killing” and the “red” with the legend. Collapsing mountain buried the animals grazing nearby together with a shepherd. Their blood oozed up and coloured the water of the lake for a long time.

One such mountain lake was inscribed on the list of internationally important wetlands - **the Lake Synevyr** in the Ukrainian Carpathians within Transcarpathian region, near the border with Ivano-Frankivsk oblast, Mizhhirsky district, and village of Synevyr. Wetland area belongs to Synevyr National Nature Park territory, surface area covers 29 hectares and the altitude range is 989 - 1020 meters.

Lake Synevyr Ramsar Site is located on southern slopes of Gorgan Mountain. The lake was formed during an earthquake when a rock crumbled and blocked the valley of the mountain stream.

Lake Synevyr is a symbol of Ukrainian Carpathians and is very popular with the public. Its water is of the highest natural quality in Ukraine. Churches and buildings with specific traditional features prove a presence of human population in this area in the past. There is high ethnographic diversity with different



Lake Synevyr from the height of the bird's eye ©<http://mizgir.com.ua/news/obschestvo-1/4777-ozero-sinevir-z-visoti-ptashinogo-polotufoto.html>

traditions and customs, Hutsul ethnic group of Ukraine, Boiko ethnic group, Hungarians. Not far from the lake there is a museum of forest rafting, which was greatly damaged from the flood in autumn 1998. The exhibits managed to survive. They are located in the Visitor Center of the Synevyr National Nature Park. The museum is now in restoration stage. Administrative building of Synevyr National Nature Park is also functioning as Museum of Nature. Environmental education centre is located in the Synevyr village.

In the centre of the Synevyr lake there is a large stone church built in the 20th century in honour of God's Mother. There was a small wooden church in the village before, designed for a small number of people and so the worship was conducted outside. In 1905, community raised funds for construction of a new large stone church. Church interior and decorating were completed in 1906. It is interesting that material for construction of the temple was brought from Hungary. The iconostasis with the icons was also brought from there. At the end of 1906, a stone bell tower was erected, with the bells from Priashiv (Prešov in Slovakia). There are 8 bells in total (in the church tower and in the bell tower). Festive consecration of the cross and the church took place on October 14, 1906. After that, the church building and its interior were subject to several changes. In the period from 2002-2008, due to donations from the village community, a complete restoration of the church was carried out. Nine old wooden churches are located in the surrounding of the Synevyr Lake. The oldests is the Church of the Holy Spirit in the village of Kolochava, St. Michael's Church in the village of Negrovets and Church of the Intercession of the Blessed Virgin Mary in the village Synevyrskaya Poliana.

First written record of the village Synevyr comes from the end of 16th and the beginning of 17th century. In the upper reaches of the Tereblia River (Talabori) there was a village surrounded by large forests, which in 1604 was called Zinever. At the beginning of 19th century the plundering of forests began. Timber trade brought great profits. More than half of the villagers were employed in forestry sector. Work of the loggers and "bokorashi" (rafters) was difficult and dangerous, requiring a great deal of physical strength, skill and heroism.

Areas around wetlands are used by local communities for collecting medicinal plants. They either use it or sell it to tourists as traditional tea with therapeutic effects.

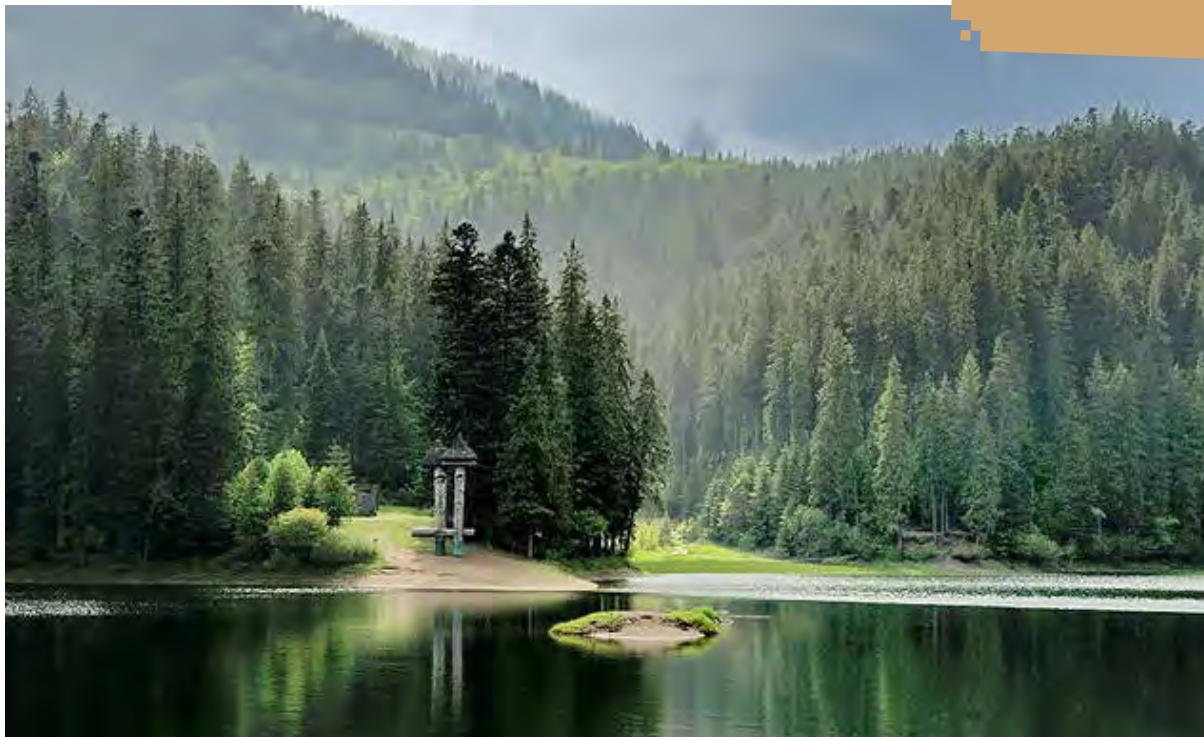
This wetland attracts around 1 million tourists per year.

Number of folk songs is linked to beauty of the lake Synevyr and surrounding landscape. There are several annual traditional religious or secular events:

Folklore and ethnographic festival "On Synevyr trembita call", is organized in August to present Transcarpathian traditions and ceremonies, traditional folklore and local originality. Program includes fair of folk crafts, ethnographic exposition and performances of best folk groups of Transcarpathia.

Festival "Guiding sheeps on Polonynas" is held annually in May on the Synevyr Pass in the area of Kamianka of the Mizhhirskyi District. Festival is symbolic for the region, as sheep breeding is a long-term tradition in the high-altitude areas of Zakarpattya, and products from sheep milk are the brand of Transcarpathian cuisine.

Origin of place names is linked to old pagan times.



Lake Synevyr [©www.ukraine-is.com](http://www.ukraine-is.com)

Sculpture which adorns the lake depicts two lovers: a young man named Vyr and a girl Syn. According to the legend, their names were basis for lake's name. The monument is 13 meters high. Who are the legendary lovers who gave name to the largest Carpathian lake?

Lake Synevyr Legend is about daughter of a local lord. Her eyes were blue and deep. One day, collecting flowers in the woods, she met a shepherd playing on a reed pipe "sopilka", and fell in love with him. Daughter began to visit the forest still more often to listen to him playing. Lovers continued meeting even after the lord forbid them to. An angry father killed the shepherd by throwing a stone at him. When Syn learned about the tragic fate of her beloved, she embraced the stone and cried bitterly. An entire lake was formed from her tears.

Ozirnyi-Brebeneskul Wetlands is another proposed Ramsar Site of Ukraine. It lies on southern slopes of Hoverla, Bretskul, Turkul, Pozhyzhevsk, Hutyn-Tomnatyk and Brebeneskul mountains, where the streams Brebeneskul and Ozirnyi spring. The area is characterized by dense river network – 2.9 km per km².

Wetland site includes four rare glacial lakes in the Carpathian region of Ukraine: Upper Ozirne (surface – 0.20 ha, depth – 0.5 m), Lower Ozirne (surface – 0.25 ha, depth – around 3 m), Bretskul (surface – 0.16 ha, depth – around 1.5 m) and Brebeneskul (surface - over 0.6 ha, depth – over 3 m). There are several other smaller lakes and bogs (sedge-sphagnum) on southwestern mountain slope. Some lakes are intertwined either by surface or underground brooks. In some places, there is a great amount of peat which is filled with a shallow layer of water during snow melting period or heavy rains.

Wetland plays an important role in water supply of the Tisa River (the Danube tributary). Around 5% of the territory is covered with bogs, mainly mountain oligotrophic bogs formed in the Ice Age.



Ozirnyi-Brebeneskul Wetlands ©eco-turizm.net

Many mountain tourist trails pass through the natural complex of Ozirny Brebeneskul lakes, thousands of tourists walk up the highest peak of Ukraine - Mount Hoverla (2061 m) each year.

Legend of the Hoverla Mountain

One day the Hungarian Baron Janos Nodi learned that none of the Hungarians had visited the highest, yet still nameless mountain in the Eastern Carpathians. He thought he will be the first to go to the top and name it by his name. Taking with him twenty brave servants on horses loaded with food and equipment, he embarked on a journey. That was in the summer. All the Hungary knew about the campaign of Nodi, who was to bring glory not only to the conqueror of the summit, but also to the state. That the peasants visited this place more than once, nobody remembered. Two months later, Janos Nodi travelled to a small Carpathian village as he got lost in the mountains. Is it really that difficult to orientate oneself in the mountains?

Summer sun can be unbearable, but it was not a reason not to go. Coniferous virgin forests cooled both people and horses. They continued until they reached the foot of the mountain in two more days. There, baron stopped and ordered others to build a camp, rest and to restore strength. They stayed for two days.

Leaving three men and horses in the camp, baron continued towards the mountain. Sky was clear, there were no clouds. They broke through thick shrubbery, slammed through stingy stones, poured over thick decks, overthrew the storm. They were falling and fading. It was already evening when these poor people came out of the woods and in front of them there opened up vast valleys, which seemed to reach the sky. Nodi did not feel tired. Having seen the peak in front of him, he was flying to be the first to reach it. Nobody noticed how the heavy clouds dragged the sky. They only felt it when thick snow started to sprinkle around them. Cold wind blew and a blizzard shot through. People ran to hide somewhere. Janos Nodi tried to stop them in vain, nobody heard him. The amount of snow that appeared made it difficult to walk. Only one third of people returned to the camp. They were exhausted, hungry and freezing. The rest died in the storm. Baron Janos Nodi did not return. Those who returned came back exhausted. - Govyrlo! Govyrlo! - This expression meant that the whole peak was covered with snow. Such a miracle, said people who came here from a remote Hungarian plain. They have not yet seen the snow in the summer. Since then, the mountain is named Hoverla, the snow mountain. And it really is the snow mountain. Large heaps of snow lie in depressions and gorges even during summer. And the weather here changes often: snow on Hoverla in the summer is not a surprise.



Mount Hoverla ©Jaroslav Košťál

The Danube River Basin

The largest river which takes on most of the Carpathian rivers is the river Danube. This river cuts through the Carpathians in South West Slovakia and North East Austria and the most impressively in South West Romania and Eastern Serbia. This is a place of **The Iron Gates Nature Park**, Ramsar Site of this region of Romania, neighbouring the **Djerdap National Park** (proposed Ramsar Site) in Republic of Serbia.

The **Iron Gates** Nature Park has a distinct presence on Romania's map of protected areas. It is a place where the Danube forms its longest and most spectacular gorges. The landscape it creates is one of the most breathtaking in Europe and one of Romania's (and Serbia's) top natural attractions.

The Nature Park stretches over 115,655 hectares, at the south of Locvei and Almajului Mountains and in southeast of Mehedinti plateau. Located in southwest part of the country, bordered for 140 km by the Danube, Iron Gates NP is a rare mix of biodiversity, geological attractions, traditional villages and multicultural heritage.



Iron Gates Nature Park ©Jaroslav Košťál



Iron Gates Nature Park ©Jaroslav Košťál



Iron Gates / Djerdap ©Jaroslav Košťál

Cultural values include features of Palaeolithic, Mesolithic and Neolithic settlements, and evidence proving the presence of settlements in the past: fortresses, monasteries, churches, buildings with special architectural features (houses, water mills, and stone arrangements), existence of ethnic diversity with different traditions and customs - Serbs, Czechs, Swabians, Gypsies, and Hungarians - without interethnic conflicts. An important feature is the presence of the largest hydroelectric power plant in the Danube basin.

Cultural heritage elements present in the area of Iron Gates Natural Park are of strategic importance both nationally and regionally.

Among the most significant cultural elements there is Vodița Monastery, built between 1370 and 1372 on territory of Vârciorova commune, about 500 m away from the Danube, near the border between the Austro - Hungarian Empire and Wallachia. Monastery of St. Ana was built between the years 1936 - 1939. Mraconia Monastery is situated on Serbian bank in picturesque place in front of former Traian's Bridge, where Tabula Traiana is located. Decebal's Head, carved

in the rock, is located at the mouth of Mraconia in the Danube, with height of 40 meters and width of 25 meters. The Fortress of Trikule was built in the 15th century to stop Ottoman expansion towards west; the ruins can still be seen near the village of Svinetu. Ladislau Fortress was built on the left bank of the Danube, near the village of Coronini, it has been mentioned since the 14th century.

Gaura Chindia II Cave is an archaeological reserve where works of art have been discovered belonging to the Palaeolithic and Neolithic Age, as well as remnants of inhabitation during Protodacian and Dacian era. Veterani Cave is known from ancient times, being consecrated by Dacians as the sanctuary of the Zamolxis god, and located in the Great Gorges Nature Reserve. Fortress and Dacian settlement in the village of Divici, at the "Grad" point, is a testimony of Dacian dwelling in this place, the site being considered of national importance.

Many sites within Iron Gates NP see traditional events related to various religious or secular commemorations which take place annually, including Mărțișorul Ball (Ilovița, February 28); Turkish Ball (Belobresca, Svinetu, February 27, Sichevița, March 2); Fruit Festival, Fig Festival (Svinetu); Danube Village Festival (Svinetu, 1-2 May); Musical Festival of Minorities (Svinetu, August); The Minority Festival (Bigar).



History in the Iron Gates Nature Park

In the villages, Serbian, Czech and Turkish communities left their mark on local culture, shaping its authenticity and cultural value. This is, in fact, protected area with highest ethnic diversity in Romania. A visit to the ethnographic museums in Eselnita, Gornea or the Iron Gates I Hydroelectric Power Plant Museum, is an excellent chance to learn more about local multicultural diversity.

Number of historical attractions completes the list of places to see. Among the main attractions there is the ruin of medieval fortress Trikule, Mraconia Monastery, water mills from Sichevita, 14th-century Vodita Monastery and unconventional Catholic Cathedral from Orsova. There are several functioning old water mills on Elesheva valleys, Povalina, Camenita.

On Serbian bank, there is a symbol of the Roman Empire's final attack on Dacian Kingdom, rock inscription Tabula Traiana, almost 2,000 years old.

The oldest traces of human settlements are from Palaeolithic and Epipaleolithic era. Out of these, archaeological findings from the area of Sichevita, Gornea, Dubova and area of the flooded Ada Kaleh Island are the most famous. Stone carving tools from middle Palaeolithic times were found in the Climente Cave and Cuina Turcului Cave from Great Ciucaru. Traces of Muster culture were discovered in Gornea. These places are considered to be the oldest archaeological footprints on territory of the park, their age being estimated at 40,000 years.

Remains of Neolithic human settlements can be seen all over the Danube Gorge, a great concentration being observed in area of Dubova.



Decebal sculpture ©Ján Kadlecík

The first documented reference of human settlement in the Iron Gates Nature Park dates back to 106 BC and refers to settlement of Dierna located on the place of former town of Orșova. As human activity in the area became still more diversified, number of documented references, as well as findings of archaeological sites increased. Romans built several castles along the river Danube, e.g. at Dierna or on territory of current Moldova Veche and Pojejena. They also built a number of different necessary facilities such as communications, ore mines and others. Continuity of human habitation in Iron Gates Nature Park

has been proven by archaeological research. In perimeter of the old Roman settlement in the Orșova area, objects from 10th and up to 13th century were found; they prove the existence of contacts with the Byzantine Empire. Several Roman checkpoints placed on the bank of the river Danube remained after the Roman withdrawal. Geostrategic importance of this area was determined by possibility to control the traffic on the Danube River, which at that time was very important to great powers of the time.

Close to Monastery of Mraconia, there is the biggest rock sculpture in Europe, representing an ancient Dacian king Decebal. Almost 55 meters tall, the sculpture required 10 years (1994-2004) of hard and often dangerous work as the rock is accessible by water only.

One of the most significant attractions of Iron Gates, island of Ad Kaleh, inhabited for centuries by Turkish community, was drowned by the Danube during the construction of the largest hydroelectric power plants on the Danube River, Iron Gates I and Iron Gates II. Building of dams increased the water level by 35 meters. Together with other villages, the island of Ad Kaleh was lost forever.

Fishing was practiced in the area of Iron Gates from oldest times, being one of the sources of food for locals. However, state of the fish stock upstream the Iron Gates I. is inappropriate now, the causes being construction of the dam without a system to ensure withdrawal of the migratory sea sturgeons; practicing unauthorized, unorganized fishing and during periods of prohibition; use of fishing techniques and tools prohibited by existing regulations; poaching; high water level variation of accumulation lake, etc.

Fishing has developed a great deal in recent years, despite the fact that fish stocks have declined considerably, both in terms of quantity and quality. This is due to declined quality of water chemical constitution and due to industrial fishing, which does not allow juvenile fish to develop.

Tourism in the area of Danube and Orsova gorges, in the present area of the Iron Gates Nature Park, has its beginning in the first quarter of 19th century, consisting of mainly hiking and admiring picturesque nature and historic sites. It has expanded towards the end of the same century by navigating the Danube, visiting Ada-Kaleh Island and other attractions.

Through its natural character and its remarkable historical and cultural potential, Iron Gates Nature Park is a place for organized and ecological tourism, providing visitor with combination of recreational and leisure activities, educative activities, environmental perception and protection of natural and cultural heritage. Tourism potential of the area is extremely high, with tourist attractions represented by view points of Great Ciucarul, the Trescovăt lava dome, exokarstic relief present on Little Ciucarul and Great Ciucarul as well as the karst plateau of St. Helena, endokarstic relief from the Ponicova, Muscovy Hole, Haiduceous Hole, Zamonița caves, etc.

Scientific tourism is done in the nature reserves of the park and is focused on protected habitats and species, geological features, caves, archaeological objects and ethnographic collections.

Birdwatching is another important activity. Iron Gates Nature Park was designated in 2011

as Ramsar Site for high number of bird species. On the territory of the Nature Park, in the area of Şușca and Sichevîța, a bird observatory functioning as a resting place was built, fenced and equipped with tables, benches and bins. Facility is advertised on panels located at visible places.

In the last years an international nautical tourism was developed - cruises to different parts of the river as well as water sports - canoeing, kayaking, ski-jet.

Cruises set off from Orșova; several ships are currently operating for passengers with a capacity between 30 and 90 people, as well as a few light leisure boats for up to 6 people.

There is number of caves on the territory of the Nature Park with noteworthy fauna and/or archeological findings, like Gura Ponicovei Cave - the most important cave in the Danube Gorges, remarkable by its size and diversity of its complex system of large passages and holes, it is interesting from biospeleological, paleontological and archaeological point of view. Gura cu Muscă Cave is well known for its endemic fly *Simulium columbaschense*. Gura Chindiei Cave is archaeological reserve where traces of cave art belonging to the Palaeolithic and Neolithic era were found, as well as traces of Protodacica period and of Dacian dwelling. Naturalistic-schematic elements such as birds and floral motifs, single or pairs of symbols, groups of signs, Cyrillic and Latin scripts, Slavonic texts, hand and finger impressions are found here. Veterani Cave is known from ancient times, being consecrated by Dacians as sanctuary of Zamolxis god, it is placed in Nature Reserve of the Great Gorges. Zamonița Cave - apart from interesting karst morphology

and hydrology (origin of the watercourse is not yet known), the cave is also remarkable by several species trapped in the underground: interesting species of *Bulgarosoma*, new species of ostracod (*Mixtocandona botosaneanui*) and aquarium mite (*Limnohala-carus wackeri wackeri*). Gaura Haiducilor Cave is characterized not only by geomorphological and hydrological features, but also by some cavernal aquatic species like *Niphargus maximus* and *Acanthocyclops reductus propinquus*. It is very likely that Great Hall of the cave was inhabited by humans. In the Cave from Ceuca Valley *Niphargus puteanus cf elegans* lives in the water of the rimstone dam and marmite. In a small passage, among the bats and rodent bones, several rings and earrings of unidentified age were found (perhaps Neolithic-Medieval).

Ethno-folk and cultural manifestations represent forms of attraction for tourists, but also create cultural identity of the Iron Gates Nature Park area. Traditional activities include land cultivation, livestock breeding, fishing and marketing of animal or vegetable products at fairs in the area. Many traditional forms of life and work have been maintained. Animals are still being used for transport, forest or field work. Everyday household's tools are made using local materials and traditional techniques. Special feature is the milling tradition, with water-powered mills in the Sichevîța Valley, tradition of which is still maintained.

Iron Gates had many names in its history - Porta Ferea in Latin, Donje Djerdap in Serbian, Vaskapu in Hungarian, Demir-kapi in Turkish, Porțile de Fier in Romanian: a barrier of rocks and swollen waters that for centuries made it almost impossible to navigate the Danube at the entrance to Romania. Many navigators, courageous or

reckless, have lost their lives trying to cross this dangerous corridor.

Today, the “killer gates” are safely navigable using navigation gates of huge reservoir created by dam of Iron Gates Hydropower Plant. Only the legends, impressions and testimonies of those who travelled this wonderful gorge throughout the centuries remind us of the clashes.

On Serbian side of the Danube, within the **Djerdap National Park**, famous Lepenski Vir is situated, near the village of Boljetin, near Donji Milanovac.

Lepenski Vir (“Lepen Whirl”) is an important archaeological site of Mesolithic Iron Gates culture. Latest radiocarbon and AMS data suggests that chronology of Lepenski Vir is compressed between 9500/7200 – 6000 BC. The late Lepenski Vir (6300 – 6000 BC) architectural development was the development of trapezoidal buildings and of monumental sculpture. Lepenski Vir site consists of one large settlement with approximately ten satellite villages. Numerous piscine sculptures and peculiar architecture had been found at the site. These define Lepenski Vir as specific and very early phase in development of prehistoric culture in Europe. The site is noted for its level of preservation and overall exceptional quality of artefacts. Due to the fact that the settlement was a permanent and planned one, with organized human life, it was labelled as “the first city in Europe”. Location of the settlement and its continual habitation of several millennia, points to the prominent “busy place”. The view of and across the Danube is wide open and the terrain on the river’s bank is stable and enduring, resisting the aggressively erosive effects of the Danube. Stability is secured by 2 or 3 boulders at

the top of the plaza, a rocky cape deeply protruding into the river. Boulders act like natural anchor to the terrain on which the settlement developed. Long habitation was also enabled thanks to vicinity of large river, natural richness of the hinterland, thermal benefits of limestone cliffs and presumable knowledge of birth control principles, given the limited area on which the settlement could grow (even though it is believed that there is still an undiscovered part of the settlement).



Lepenski Vir ©Dragan Drndarević



Museum Lepenski Vir ©Dragan Drndarević

Due to rocks protruding out of the waters, whirlpools create, making the waters more oxygenated, richer in algae and thus abundant in fish. Whirling makes fishing easier, as opposed to rushing waters of the Danube through the gorge. Also, swirling water actually deposited materials on downstream side of the *plaz*, known today as Katarinine Livadice, making it stronger and more stable, instead of allowing the fast and strong river current to erode it. In immediate hinterland, there is a slope Koš Brdo. Embedded into it is the natural stone niche or a rock shelter, called Lepenska Potkapina.

Downstream from Lepenski Vir, in the direction of Vlasac location, and half-way to the mouth of the small Boljetinka, or Lepena river, there is a 40 m high vertical Lepena Rock rising over the river. At the foothills of the rock, Romans built a road which is under the waters of Lake Đerdap today. It is situated at the depth of 13.5 m, together with the commemorative road plaque of Emperor Tiberius. The slope above the Danube between the Lepena Rock and the mouth of the Lepena River is also called Lepena, so as the bight where the slope ends.

Main site consists of several archaeological phases, whose occupation spanned from 1,500 to 2,000 years, from Mesolithic to Neolithic period, when it was succeeded by Neolithic Vinča culture and Starčevo culture, both upstream the Danube, 135 km and 139 km from Lepenski Vir, respectively. Number of satellite villages belonging to the same culture and time period were discovered in the surrounding area. Artefacts found there include tools made from stone and bones, house remains and numerous sacral objects, including unique stone sculptures.

It is assumed that people of Lepenski Vir culture represent the descendants of early European population of hunter gatherer culture from the end of the last Ice Age. Archaeological evidence of human habitation of surrounding caves dates back to around 20,000 BC. The first settlement of low plateau dates back to 9500 – 7200 BC, time when the climate became significantly warmer.

Numerous sacral objects were discovered there. Piscine sculptures, unique to the Lepenski Vir culture, represent one of the first examples of monumental sacral art on European land.

Lepenski Vir provides us with a rare opportunity to observe gradual transition from hunter gatherer way of life of early humans to agricultural economy of Neolithic Age. More and more complex social structure influenced development of planning and self-discipline necessary for agricultural production.

Iron Gate I Hydroelectric Power Plant became operational between 1970 and 1972, when artificial Đerdap Lake was formed. The lake was to flood the original location of the site so almost the whole site was to be relocated to another place. A new location was chosen, some 100 m downstream and 30 m higher than the previous one. The largest part of the settlement discovered, consisting of almost all the houses of the Vir I period, was relocated in 1971.



Piscine sculptures discovered in Lepenski Vir ©Dragan Drndarević

Still, Lepenski Vir is the oldest organised settlement in Europe and has unique, trapeze-shaped houses seen nowhere else. Its culture yielded not only the first portrait sculptures in history, but also the first sculptures bigger than real-life sizes in the history of human art. Sculptures are the largest made by humans up to that period and among the first to have mouth or ears carved. Additionally, skeletal remains from Lepenski Vir make up almost half of one of the largest Mesolithic anthropological collection, which is important for the future bio-archaeological and DNA research.

On 26th May of 1966, the State Institute for the Protection of Cultural Monuments safeguarded the protection of Lepenski Vir as a Cultural Monument, expanding the level of protection in 1971. In 1979, Lepenski Vir was designated a Cultural Monument of Exceptional Importance.¹⁵

Wider area of Lepenski Vir has later become part of Roman Empire, and later Byzantine, Danubian Limes, and it contains Roman and mediaeval fortresses, like Golubac Fortress or Fetislam. Diversity of natural, rural and cultural heritage, in particular preserved examples of popular architecture and residential units, contribute to strengthening the identity of the Djerdap National Park. It also supports identification of residents and visitors with natural and cultural values of rural areas, thus enabling better conservation. The area is populated by multi-ethnic population. Each ethnic group preserves its traditions and customs, which contributes to multicultural character of the area.

During Roman period, the Danube was an important waterway, and its banks, particularly at Djerdap Gorge, served as strategic locations for Roman forts erected to ward off barbarian invasions. Diana and Pontes were the largest in this system of fortresses. Ancient road surrounding the site was perhaps the most representative example of Rome's construction prowess in the region. Tabula Traiana plaque marks section of the road along the Danube River leading to Djerdap. It is believed that this last, most complicated section of the road was completed in the year 100 A.D. and was significant in Emperor Trajan's preparations for warfare against the Dacians.

Near the Golubački town, the Danube River overlooks imposant limestone massif creating sort of vestibule of Đerdap region, the token by which one enters the area of Iron Gates. It served as an inspiration to poets and painters,



Tabula Traiana © Ján Kadlecík

as a beacon or scaffold for tired boatmen. The rock Baba Kaj attracts public attention even today for the mystery that disguises the origin of its name.

A detailed description of the location of the Djerdap rock is given in passenger's notes from the year 1893: "Baba Kaj is a freestanding rock with sharp end, which rises 18 metres above the surface of the water. It stands there as an outpost of the Danube gorge, as a precursor to many of those rocks above and below the surface, which hinder the passage of the gorge, stands as a reminder of dangers that begin there". The same text can be found in one narrative, which describes, that "There once was a Hungarian commander over the town Golubac, who run away with the most beautiful woman from Turkish harem. The offended husband rushed after them and reached them on the banks of the Danube River. He took off hijacker's head, hanged it around the neck of unfaithful woman and nailed her to the rock for crows, ravens and eagles to peck her living body apart. Babo repent! - he cried as he left her there. And from that time the rock is called Baba Kaj".

¹⁵ https://en.wikipedia.org/wiki/Lepenski_Vir

On the steep and inaccessible rock on the right bank of the Danube, there rises Golubac fortress with ten towers and two large gates. It is not known when and who erected the Golubac Fortress; it was mentioned after death of King Dragutin Nemanjic (1316) for the first time as fortification against Hungarian soldiers. Through centuries it lives its life in myths, stories and legends. The beliefs are intertwined with traditions that this is a place where fays, rusalkas and other mythical creatures gather. There also is a legend of the lost Roman treasure, which was suddenly engulfed in the cave, as well as all those who later tried to find it.¹⁶ There are stories that the fortress is named after the appearance of the tower on the cliffs acting as pigeons on a rock. There are those who claim that the cliffs were inhabited by wild pigeons and that is why the town got its present name.

Golubac Fortress is located four kilometres downstream from the town of Golubac, on steep Danube river bank just before the entrance to the Djerdap Gorge. Golubac Fortress was built on rocky slopes of a small hill, the offshoot of the Homolje Mountains. There is a legend of how this fortified place was established. The story says that there once was a beautiful girl by the name

Golubana. Stories about her beauty reached to the Turkish Pasha who proposed to marry her and presented her with silk, pearls and many other gifts in order to become her groom. The girl refused his offer just as offers of all the other admirers, so the Turkish Pasha decided to punish her. She was tied to a cliff above the Danube and birds mutilated her body until she died. The town memory of the girl's beauty and sad story remained amongst locals. The town where she lived got the name Golubac.

Another legend says that it got its name after Byzantine princess Jelena, who was imprisoned in the main Hat tower (Sesir kula) and she quenched her sorrow and loneliness by raising pigeons, which later made the fortress its name.



Golubac Fortress ©Dragan Drndarević

Reality and legends mix more here than anywhere else in Serbia, and it is hard to see the dividing line between them.

Djerdap is proposed for designation as the Ramsar Site, creating bilateral transborder site with Iron Gates Ramsar Site on Romanian side of the Danube River. Đerdap gorge consists of three separate gorges and two canyons which are associated with the three valleys. Eastern end of proposed Ramsar Site includes Kladovska peščara (sands) and fishponds "Mala Vrbica".

In the area of National Park, there are two Visitor Centres, where one can obtain necessary information about protected area and activities of NP management. Besides these centres, there are also three tourist information centres in Golubac, Donji Milanovac and Kladovo, which provide brochures and information. In addition to organized visits to viewpoints and guided walks, renting of speedboats for sailing on the Danube is also available. In the protected area, tours along the Danube in the summer tourist season are organized by several owners of boats of different capacities. Donji Milanovac is a destination for foreign cruise ships docking in Serbia.

¹⁶ <http://www.telegraf.rs/english/2710205-mystery-of-serbian-fortress-where-birds-ate-a-girl-tied-to-a-rock-these-beautiful-towers-hide-the-greatest-secret-photo>



Mali Kazan ©Dragan Drndarević

South Moravia, the valley of the rivers **Morava and Dyje** (in the vicinity of Trilateral Ramsar Site Floodplains of the Morava-Dyje-Danube confluence shared with Austria, Czech Republic and Slovakia), belongs to the most important and richest archaeological discovery sites in central Europe, proving the settlement of rivers' adjacent area from ancient times.

The sites with favourable climate conditions on the edge of the Carpathians were inhabited from the Palaeolithic (e.g. area around Dolné Věstonice, Pavlov – discovery of female statue from burnt clay – Věstonická Venuše, 29 000 – 25 000 BC; the oldest known evidence of textile production in the world was found in Pavlov; huge amount of stone and bone tools and rare art objects). Excavations and remnants of Roman military camps found here testify that Roman Empire reached up to the area of south of Moravia. This is also the area where the most significant monuments of Great Moravia (8th - 9th century) come from, e.g. Slavic hillfort in Mikulčice.

¹⁷ <http://www.jizni-morava.cz/objekt/>

Immense richness of monuments and discovery sites can be appreciated through the many museum expositions and educational trails. There is Archeological Park Pavlov, open-air museum Archeoskanzen Pohansko and others, which are popular by both experts and laics.¹⁷

Area of **Žitný ostrov Island** (partly an element of **Ramsar Site Danube Floodplains**) was an important wetland of Slovak section of the Danube River in the past. Divaricated water course had created a unique alluvial fan, north part of which is represented by Žitný ostrov and south part by Small Žitný ostrov Island (Szigetköz) in Hungary. Huge inland river delta was here before, which today is evidenced by fragments of river branches, oxbow lakes and former meanders. This area, which is bordered by the rivers Danube, Malý Dunaj and Váh from Bratislava up to Komárno and which creates the largest water island in Europe, was in the past called „Golden garden“.



Soutok in the Dyje and Morava rivers floodplains is a part of Dolní Morava Biosphere Reserve ©Ján Kadlecík

The swamps, richness of waters and wild pastures, protected by two embracing branches of the Danube River had provided a refuge to humans in Bronze Age already. Archaeological findings confirm that diverse nations have lived on the largest inland river island in Europe. Structure of villages at Žitný ostrov Island is very old and, based on their names, it is presumed that they represent one of the oldest settlements of the Carpathian basin as such. Despite the fact that the village structure was established relatively soon, inhabitants practiced partly nomadic way of life for centuries yet. Most of them lived in houses, but their livestock - Hungarian steppic cattle and mangalica swine – was kept outside on pastures without any shelter (so called wild animal husbandry). The barns have started to be built in 19th century. People living in the Žitný ostrov Island were hunters and gatherers who lived of the gifts of nature. Their diet consisted of fish and game, even though it was forbidden for common people to hunt at certain times. However, in the swampy labyrinth, inwrought by the river branches, there was not much that the guards could do against the inventive techniques of local people. Swampy, fen-like terrain was not suitable for any kind of management; therefore locals gathered mushrooms and enriched their diet by a variety of edible plants and fruits. They had a great knowledge of medicinal plants growing in the area and they collected them for future use. Swampy areas, which prevented the land from agricultural use, were drained at the end of 19th century and building of channels and dams has commenced. One of the site's curiosities was a furnace in which bread was prepared in the middle of 19th century. Furnaces were cone-shaped structures made from clay, which could be as tall as a house and surrounded by a smaller wall. They were jointly used by the locals. However, nowadays, none of the furnaces can be found on the island.

Traces of the Roman settlements can also be found at the Slovak part of the Danube River. Term **Limes Romanus** names the border of the Roman Empire, which is partly represented by the river Danube as a natural barrier. Roman Empire stretched even over today's Slovakia, the evidence is provided for example by Roman camp Gerulata near the village of Rusovce, the fortress in the town Komárno at the confluence of the rivers Váh and Danube, Roman military camp in the village Iža, as the only fortified point on the left side of the Danube River.¹⁸ Danube Limes in Slovakia – Roman ancient monuments on the middle Danube is a candidate site for the UNESCO List of World Cultural Heritage.



Žitný ostrov ©Dr. László Timaffy in BROZ archive



Limes Romanus, Villa Rustica ©Jozef Klinda

¹⁸ https://sk.wikipedia.org/wiki/Limes_Romanus



Confluence of the Danube and the Morava rivers with Devín Castle ©Radoslav Považan

Locals used swamps, fens and reeds to hide during Tatar raids. In that time they communicated by signals resembling the sound of toads. „Kuk“, said one. „Kó“, replied the other. And so the ingeniousness of locals gave new name to this area - Kukkónia.¹⁹ The name Čalokez/Csallóköz (Medzičalovie) is recorded for the first time in 1250, where also Cholloucz is mentioned.

Life of our ancestors flowed in the spirit of explicit regulations and immemorial order, which was set by alternation of working and festal days, by customs and tales related to them. Beginning of latter-day changes interfered with ritual harmony of the old world. However, it is still possible to find places on Žitný ostrov Island, where people still practice traditions of the old days (28th December – tradition of whipping in Bodíky, carnival processions, burial of the Winter, expecting the Spring, etc.).



Gold extraction ©Dr. László Timaffy in BROZ archive

As the area along the Danube was rich in water courses and river branches, the craft of milling, rafting and fishing has well developed here. The importance of rafting and milling has decreased after the river regulation at the end of 19th and beginning of 20th century. At some places, especially in Komárno, Martovice and Nesvady fishing nets weaving was widespread. Objects of everyday use were made of cattail and reed as part of folk tradition in villages near the rivers. Art and utility smithcraft is practiced until now by Gypsy group in Dunajská Lužná. Traditional roof made of reed (*Phragmites*) can still be found on several houses in the area.

An interesting craft, that provided living to hundreds of families living at Žitný ostrov Island at the end of 19th and beginning of 20th century was alluvial gold mining. The gold was extracted from alluvial sand with a help of specially made table with a mesh at its upper part and the desk leaning towards the water.

¹⁹ Horváth, K. L.. 2017. Kukkónia: Žitný ostrov. Dunajská Streda: LOAR, 128 pp.

White willow pruning was typical for this area (it was used as a renewable source of energy for heating, fencing, embankment fortifying, and basket weaving). White willow (*Salix alba*) creates living conditions for a great number of animal and plants species – it is a very specific and important tree. The willow loves humid environment, it is well adjusted to flooding or even permanent waterlogging.

The so called “head willow” is a result of a special type of tree’s crown pruning, which is based on its regeneration ability and vitality. Willow grows new shoots again and again after every pruning, sustaining the provision of source of material. Willow pruning belonged to ancient professions of Žitný ostrov (fuelwood, baskets, whips, medicinal effects – the bark was used to lower the temperature, only later on it was found that it contains salicylic acid). One well pruned willow could supply a family with fuelwood for 100 – 150 years. Boats were used to transfer the wood.



Head willow ©Adriana Kušíková



Willow pruning in Detvice site ©Jozef Lengyel

Willows are a valuable remnant of sensitively managed landscape. Their occurrence is an evidence of long-term human activity not only in the area of Žitný ostrov Island, but also in other countries of Europe. Willows had been used by humans ever since they needed a shelter, fencing, wooden tools and weaving material. Archaeological excavations document its multiple uses and vastness of its habitat from ancient times. Willow is fast regenerating source of energy and building material.

Their ruffled heads and eerie hollows have always inspired people. Willows found their place in songs and proverbs. The term “hollow willow” (to which people addressed their complaints and secrets or confessions) has become part of everyday life. According to tales and stories of the Žitný ostrov Island, fairies but also evil witches resided in them.

The reed was collected along the banks of slow flowing river branches or on muddy, swampy area in the winter. Up until recently reed has been collected and processed on the **Parižske močiare** Ramsar Site in the south of Slovakia. Use of reed can be presently seen in Gabčíkovo as well („blinds“ in the tree nursery, insulation material under parging in buildings, decorations, fences, roofs made of 300 – 400 bundles, animal feeding stations’ roofs).



Willow furniture and products for sell in the local village in Ukraine ©Bohdan Prots



Reed harvesting at the Parišske močiare Ramsar site ©Jozef Lengyel

Existence of the many watermills on the Malý Dunaj River is evidenced by remnants of the edge runner mills in the villages of Jahodná, Tomášikovo, and Jelka. The only boat mill – floating watermill is on blind stream branch in Kolárovo (it is the only one of its kind in Slovakia and it is designated a Technical Cultural Monument). The access to it is safeguarded by an 86 m long bridge, which is considered the longest bridge of wooden construction in Europe.

Mill reconstruction was done in the Slovak Docks in Komárno in 1982 following an example of former boat mill in Radvaň nad Dunajom.



Watermill in Kolárovo ©Jozef Lengyel



Wooden bridge to the water mill ©Jozef Lengyel

Not far from the village Dunajský Klátov, on Klátovské rameno river branch there is a unique water mill, which is also a Technical Cultural Monument.

The Danube floodplains and the river adjacent area can be admired not only by floating on the old channel of the Danube and its branches, but also from deck of a cruise. Bratislava boat companies offer boat trips from historical centre up to the ruins of Slavic hillfort Devín, or a shorter sight-seeing trip, so called „Bratislava circle“.

People living in the embracement of the Danube River had a respect for it, they tried to reveal its mysteries and decode its secrets. They populated mystical tributaries and wetlands with magical creatures and any quiver of life giving stream was in their views connected with the magic. If the Danube was in a good mood, it looked after its children, who repaid its care by not interfering with its island fairies. Mythical creatures had happily splashed in quiet waters and the whole water surface was covered with gold dust falling off their hair: that was how they thanked locals for their kindness. In his insatiability the human offended the fairies and they moved away, far from the river Danube and its embracement.

As we can see, cultural history of this region is very rich and there is still a lot to be discovered.



Water mill on Klátovské rameno ©Jozef Lengyel

Following the fairies' traces

People in the past looked for answers to many of natural occurrences. Unpassable swampy terrain of Kukkónia provided for a wide array of unanswerable questions. According to folk etymology, the name Csallóköz (Medzičalovie, today Žitný ostrov) comes from waywardness of the region, from the term "csalo" (liar, deceptive).

Tradition says that locals lured strangers into the swamps. As stranger was not familiar with local environment, it was more than likely that he will end up dead. The term "the luck of the islanders of Žitný ostrov" also characterises natural conditions of the Gold Garden. Žitný ostrov Island was a tangle of islands in the past, created by meandering Danube river branches. A traveller could move from one side of the region to another with only a great difficulty. The one, who after overcoming water barrier had an empty boat waiting for him at the next river branch, had "the luck of the islander".

According to our ancestors, the island held the name Gold Garden in the times when gold-haired fairies (nymphs) lived there. There are stories which describe fairies as kindhearted, helpful and happy creatures. They helped the fishermen and also led shepherds' stray animals back home from the swamps. Superstitions say that the gold in the river was there from the fairies; as they combed their hair, they threw golden hair and gold dust from the combs into the river. The most popular was their queen Helena (Vila Helena), who lived in the Lake of the Fairies and often swam the waters of the river disguised as a swan. Locals used to hear the voices of the singing fairies. Once, when Helena went for a bath, there was a young boy who had seen her and stole her clothes. Helen got so angry about it that she and all the other fairies moved out from the Garden. Her younger cousin Ruženka, however, stayed until today disguised as a beautiful waterlily.

Cattail weaving

Many people are not aware of what kind of plant cattail (*Typha* sp.) is. Many times it is mixed with reed. However, the one who has at least a little interest in nature and environment knows, that it is natural material of unique characteristics that no other plant has. Cattail is a tall standing stout plant, which creates grows in large stands in the places with stable water levels. It is also noticeable by its two notable spikes which grow at the end of the stalk.



Typha angustifolia ©https://pixabay.com/p-343900/?no_redirect

Due to intensive agricultural practices, disrupted pond littorals as well as impacts of draught, cattail and the tradition of cattail weaving naturally declines. Weaving of natural materials was an activity that accompanied humanity ever since its beginnings; therefore this craft belongs among the oldest in the world. Weavers and weaving centres can be found anywhere in the world where natural conditions provide suitable raw material. In the past, there were many different ways in which cattail was utilised in Slovakia. It was used as a material for making rooftops, for stuffing the gaps, for making bags and mats. In Europe, weavers can still be found in Poland, Hungary, Italy, Bulgaria and Spain. In the Czech Republic, this craft has a rich history; 300 families were practicing cattail weaving in the town Bakov nad Jizerou at the beginning of 20th century. Further production centres were established on the territory of Bohemia and Moravia. Cattail weaving had become a fruitful business, 20 local businessmen and 2 American companies were involved in it. Most products were exported to the whole world. Cattail hats were especially popular in Africa. Production started decreasing with the industry development as a result of the Second World War. About 90 % of workshops closed their production line. Joint communal company was established in 1950 during communist era, which took over all the workshops, equipment as well as supply of material. All the production was concentrated into one production hall, which started to decline towards the end of 1990, until its final closure in 1992. This craft has almost been forgotten. Nowadays, it is maintained as a form of local folk tradition. Cattail is also used in traditional local dress (bakovský kroj). During ceremonial act of receiving newly born babies as citizens, they are laid into historical woven cattail crib.

Tradition of weaving has fortunately still being passed from one generation to another and therefore it is possible to meet people who continue this tradition, for example in Hungary. In the Czech Republic, there is only Mrs I. Dandová who weaves various products from



Cattail weaving ©Adéla Ciháková



Cattail Products ©Adéla Ciháková

cattail on professional level. Apart from active production she also promotes this traditional material through organising weaving workshops and courses for schools and general public. She also helps organising various exhibitions in museums and other institutions, which are active in maintaining folk traditions. A publication²⁰ providing interesting information about history of weaving has been published in 2017 with the support of the Ministry of Environment of the Czech Republic and the EEA Grants. It also contains detailed description of material preparation, as well as photographic manual of patterns and different ways of weaving.

Festivals

Among festivals devoted to wetlands the **Wild Geese Festival in Tata** in Hungary can be mentioned. It is a special late autumn-early winter event of international reputation attracting numerous nature-lovers, conservationists, birdwatchers and fowlers from all over Hungary and abroad.²¹

The theme of daily events series is to greet migrating wild geese, coming from the far north regions. This is not a loud festival with music and merchants' fair, yet it still has its own special flavour. This is fair where the many thousands of wild geese provide entertainment and visitors are the audience. The "Wild Goose Festival of Tata" is organized by Komárom-Esztergom county branch of the BirdLife Hungary, the Duna-Ipoly National Park Directorate and the Nature Conservation

Association of Száz Völgy, since 2001. In addition to birdwatching and bird banding show, visitors can also visit lectures, falconers' shows, get expert advice on nature and environmental protection, study publications, obtain offers on hiking and ecotouristic tours, astronomical programmes, and a playhouse for the young.

What makes this Europe-wide "one of a kind attraction" is the "**Öreg-Tó**" (Old Lake) itself. This is the only bird resting location surrounded by a whole town.²² Tata is the "City of Water" with the most significant water castle in Hungary. There are several historic monuments of baroque architecture mixed with modern age constructions, which creates a special background for bird watching. This unusual encounter of nature and culture is what makes the city of Tata so special and magical.

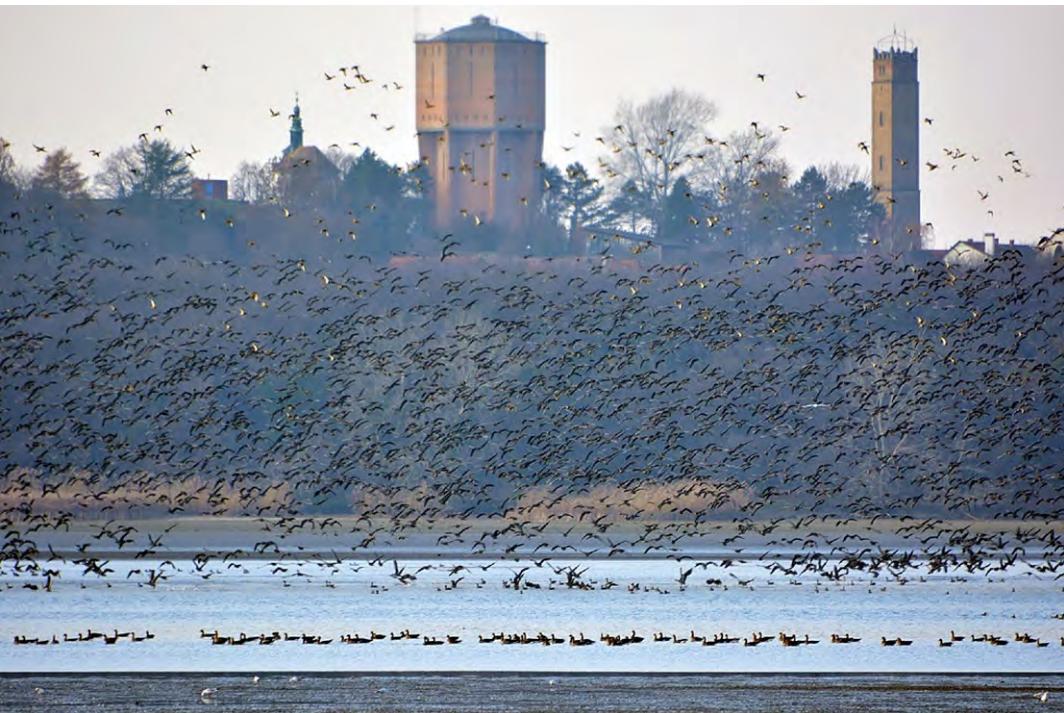
Water, Music and Flower Festival is organized in the same location in June.

Ranking as one of the country's top ten festivals, this event based on the idea of sustainability, is formed by series of family events and entertains visitors from all over the country and abroad. In picturesque setting of Öreg-tó (Old Lake), apart from programmes for children, renowned home and foreign ensembles, orchestras, singers and artists perform. Further attractions include water contests and water procession, a flower show, a fair of premium quality handicraft products, demonstration of traditional handicrafts, wine prom and a fish yard.

²⁰ Dandová, I. & Kučerová, A. 2017. *Pletení z orobince*. Ministerstvo životního prostředí, Praha, 95 pp.

²¹ <https://www.internations.org/activity-group/1285/activity/219617>

²² <http://www.vadludsokadalom.hu/en/index.php?p=kuldetes>



Wild Geese Festival in Tata ©<http://www.vadludsokadalom.hu/en/index.php?p=galeria>



Wild Geese Festival in Tata ©<http://www.vadludsokadalom.hu/en/index.php?p=galeria>

Classical music concerts held as an introduction to the events also contribute to festival's artistic and cultural character.

Fishing

Fishing has a long tradition in Hungary. Two hundred years ago there was sufficient amount of both water and fish in the rivers and so fishing was integral part of life of Hungarian people. The town of Szeged has been named as place of fish and fishing as soon as in 13th century. Fishing companies were already established in Komárom at the end of 18th century. More information about traditional way of fishing can be obtained from the exposition of the Visitors Centre near the **Tisza tó** (Kiskörei-víztározó) reservoir in the northeast Hungary.

Ottó Herman (1835 – 1914), the last Hungarian polymath has published 860 pages long book on fishing in 1885. The birds and the fish were at the top of his interest, from fish it was mainly European sturgeon (*Huso huso*) and other sturgeons (*Acipenser* sp.). They favour Hungarian waters of Danube, to which they migrated in large numbers and they became an integral part of Hungarian economy.



Model of *Huso huso* in the Orth an der Donau (Austria) castle. ©Ján Kadlecík

The largest European sturgeon captured in this part of the Danube River in 1857 weighed 464 kg, according to historical information. Their harvesting was so popular that already in 1563 they harvested more sturgeons than they could use. Sturgeon migrated up the Danube from Hungary to Bratislava, continued up the middle of the Morava River and into the lower part of the Váh River in Slovakia. Since the end of 18th century still less fish has managed to migrate up the large rivers. First it was due to the regulation of lower part of the Danube River, and then it was due to building of Iron Gate Dams which prevented sturgeon to embark on longer journeys. Today it is very rare to see this giant even in its original places of occurrence. Their meat is of high quality and its roe is used to make the most expensive caviar, price of which reaches over several thousands of dollars.

European sturgeon and other sturgeons were fished for with various kinds of fishing nets, fish pots, baskets, harpoons and traps. This equipment and all the tools can be seen in museums and ecocentres. European sturgeon and other sturgeons were fished for with various kinds of fishing nets, fish pots, baskets, harpoons and traps. This equipment and all the tools can be seen in museums and ecocentres.

Nonmaterial cultural heritage of the region and wetlands

It was not only the architecture, buildings, tools and crafts, food or dresses, but also dance, music and poetry, traditions, rituals and celebrations of different feasts during the year that lasts more or less preserved as a part of cultural heritage of the Carpathian region. Those which are forgotten are being renewed and made alive again – just as the wetlands themselves. We search for our roots, for the source, for our spring. Different songs, folk literature, comparisons, sayings and proverbs, rhymes, recitations, tales and legends live even today thanks to being used during various occasions and during everyday life of people living in the “Carpathian” and adjacent “Danubian” countryside.

Different types of wetlands and their typical “features” can be found in probably every area of folk art – springs, rivers, lakes, wells, waterfowl, typical alluvial trees, life giving water...



Examples of fishing tools ©Adriana Kušková

People were connected with wetlands and nature, they lived in harmony with it, poured out their hearts there, many times they worshipped it and tried to reconcile with it through various rituals. Some of these traditions last even today, for example burying Morena (the goddess of winter) in the river, pouring water over the body as a process of purification, releasing the wells. Many of these are related to the old Slavic pagan traditions; they continue their life within us...

Traditionally believed the water has a protective, purifying, fructiferous and healing effect. In accordance with the Slavic tradition, the time before the Easter was a time of purification and fasting. **Ritual ablutions** in the river or pouring the water on someone else was an act of real as well as symbolic transfer of the water characteristics onto people and animals living at certain specific time and place.²³

²³ <http://www.povecernik.sk/nas-tip/207736>



Traditional spring ritual with Morena (painting from Forest Club Jadierko) ©Adriana Kušiková

In some regions, for example at Liptov in the north of Slovakia or in Moravia, there still lives a **tradition of releasing the wells**. In upper Liptov, particularly in Važec, is this old tradition of people (especially the girls) clearing up and so "releasing" the wells of the village, alive up to today thanks to the local folk groups. The tradition has spread to other regions as well. In the past, the wells were cleared up during the whole season between the Easter and Pentecost. According to the old sayings, the area which would have not been cleared, would suffer from the lack of moisture. Vice versa, a person who clears up at least one well should stay healthy and free of headache for the whole of next year. An old dance called chorovod and a song called is Omilienci are being danced and sung during this tradition. In Moravia and Bohemia, the girls

²⁴ <https://enviroportal.sk/clanok/31-maj-den-otvarania-studniciek>

²⁵ <https://sk.wikipedia.org/wiki/Morena>

have chosen a queen (králevnička, králenka) from among themselves after clearing the wells. It was supposed to be petite, kind and pretty girl, who was adorned with the flowers and together they went from house to house asking for contributions for the celebration (majáles, juniáles).²⁴

Burying of Morena (other names: *Morana, Murienka, Smrť, Hejhana, Kyselica, Kysel', Baba, Šmertka, Smrtka, Kaniža, Marmurienka, Barborienka*) is a traditional ritual practiced even today in Slovakia. Morena was a goddess of winter and death in old-Slavic pagan belief, very well-known even in today's folklore. She represents winter; the spring marks the end of her reign. However, she cannot be considered only the goddess of death or some kind of hideous old woman. Allegedly, she was very beautiful and she also had a beautiful sister called Živa, who was a goddess of the spring and life. She used to awake at the beginning of spring and her reign ended toward the end of autumn.

Morena is usually represented by a figure made of hay closed in female dress. This figure is first carried through the village, then set on fire and thrown into the river. People have believed that this is the way to cast out disease, even death. The hay figure was a symbol of winter, destruction of which was to open the door for spring and then summer. Nowadays it is especially nursery children who make this tradition alive and bury Morena along singing folk songs and saying nursery rhymes.²⁵

In Ukraine, on Ivan Kupala, people have long performed specific rituals of purification with the help of fire and water. On July 7th - the day when one of the most mysterious holidays is celebrated - Ivan Kupala, it is believed that on this day there is purification from the unclean with the help of fire and water. The night on Ivan Kupala is a time of unity with nature, unusual traditions and interesting rituals.

Ancient Slavs believed that before the onset of the holiday of Ivan Kupala it was impossible to swim - the unclean power can be tightened to a depth. However, early in the morning, the water gets healing properties.

Unmarried girls at night wove wreaths of grasses and flowers and threw them into the water. The wreath was to be woven according to a special technology, which includes 12 species of plants. By how the wreath floats, the girls determined their future for women's happiness.



Divination during Ivan Kupala ©<https://goo.gl/images/dZehNc>

Folk-tales, fairy tales, legends and myths

Several authors have compiled folk-tales, fairy tales and legends from different parts of the Carpathians^{26,27}, or the Danube River valley^{28,29}, amongst which there are also those related to wetlands, their heroes or mythical creatures. Some have even focused on folk-tales about the rivers³⁰, lakes, glacial lakes, wells and springs³¹, or healing springs and spas³².

Wetlands and water are also often mentioned in the Czech literature. Even though the most famous works relate to areas outside of the Carpathian region, they represent the Czech Republic as a Carpathian country.

It is especially the land of Southern Bohemia, which is rich in water, wetlands and peatlands. Fairytales of Marie Kršková, **Blatské rozprávky** relate to **Třeboň marshes** / peatlands (Třeboňské blata/rašeliniště), which are now listed in the List of Wetlands of International Importance of the Ramsar Convention. Author depicts everyday life of ordinary people in humorous short stories, fairytales and songs. People usually go through interesting events during the times of communal gathering: during fares, balls, processions, weddings but also while at work.

Another work which relates to this part of the country is called **Země zamýšlená** (The country lost in thought) and is written by Ladislav Stehlík.³³ It is one of the most influential literature works of that region. It would be very hard to find a book which would better describe richness of cultural diversity with such unselfish love for the homeland.

Very popular and generally known is the book of Josef Lada Monsters and Watermen, in original language called "**Bubáci a hastrmani**". Figure of nix (waterman) is frequently represented in Czech fairy tales, legends, films, notoriously known is the poem Nix (Waterman), "**Vodník**", in the collection of the poems "Kytice" (Nosegay) from Karel Jaromír Erben.



Josef Lada: *Vodník* (Nix, Waterman)

Wetlands of Podyjí (the area of the Dyje River – part is included in the Ramsar Site) are described in the book of Jaromír Tomeček **Admirál na Dyji**. A good and sensitive observer and nature lover talks about nature on the Dyje River through eyes of a young boy. At the same time, this beautiful area is being unnaturally changed into a field by human activities.

Region of Šumava Mts. (which includes the Ramsar Site Šumava Peatlands) is also area which is mentioned in the many works of the author Karl Klostermann. These are: The Fogs on the Marshes (**Mlhy na blatech**), In the Šumava Paradise (**V ráji šumavském**), In the heart of Šumava forests (**V srdeci šumavských hvozdů**) and others.

²⁶ E. g. Urban, P. 2012. *Karpatské povesti*. Vydavateľstvo Matice slovenskej, s. r. o., Martin, 144 pp.

²⁷ Csenge Virág Zalka, 2018. *Dancing on Blades: Rare and Exquisite Folktales from the Carpathian Mountains*. Parkhurst Brothers, Inc.

²⁸ Ďuričková, M. 1996. *Dunajské povesti*. Bratislava: Mladé letá, 1996. 279 pp.; Ďuričková, M. 2010. *Dunajská královna. Povesti, báje a historické obrázky*. Slovenské pedagogické nakladatelstvo – Mladé letá.

²⁹ Endre, L. N. 2006. *Csallóközi történetek*. Komárom: KT Könyv- és lapkiadó, 128 pp.

³⁰ Válek, I. 2013. *Povesti o slovenských riebach*. Vydavateľstvo Matice slovenskej, s. r. o., Martin, 137 pp.

³¹ Válek, I. 2017. *Povesti o slovenských jazerách, plesách, studniach a studničkách*. Vydavateľstvo Matice slovenskej, s. r. o., Martin, 119 pp.

³² Válek, I. 2015. *Povesti o slovenských liečivých pramenoch a kúpeľoch*. Vydavateľstvo Matice slovenskej, s. r. o., Martin, 151 pp.

³³ <http://www.zemezamyslena.cz/>

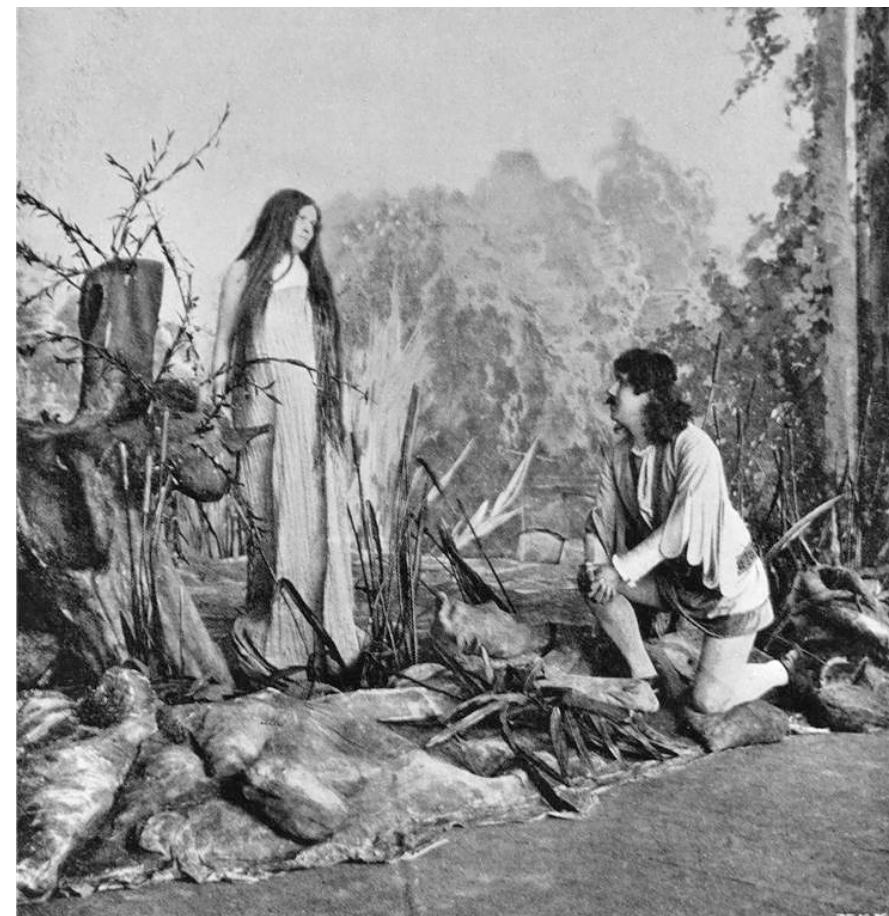
Other wetlands emblazoned with folk-tales are peatlands of Jizera, **Jizerská rašeliniště** (Ramsar Site Headwater of Jizera in north Bohemia). Many of them are compiled in the book of Miloslav Nevrhlý, the Book of Jizerské hory **Kniha o Jizerských horách**.

Wetlands play their role even in modern art work of Czechoslovak and later on Czech and Slovak cinematography as well as in growing number of documentaries dedicated to wetlands.³⁴

Variety of mythical creatures is depicted in the Carpathian and Danube-related legends and myths.

Mythical water creatures are usually known as **water nymphs/Rusalkas**. Water nymphs are closely connected to the place they guard, care for it and into which they breathe the life. They look after the water in all its forms – the lakes, rivers, brooks, paddles or even the rain-filled clouds. Water nymphs, which can be met in the nature, are usually very similar in looks. In almost all the cases they take on female image and are presented as a very fine and ethereal little women created of water or water vapour. The cleaner the water, the more beautiful form of life they choose for themselves. They can also be seen with human eyes if they choose to come in the form of an animal. For this they usually choose the fish, dragonflies or some other type of water-bound insect. Occasionally they appear as a kind of amphibian – frogs or newts. Some of them take on an image of swans or waterlily. Freshwater water nymph is the most gentle and soft creature, her power is as big as is the water area they dwell in. They often live near tree roots, they help them with the moisture. They can be seen dancing in the fog near muddy peatlands. Water nymphs lure travellers to dancing and the one who gives in, will be torn alive to pieces.

Folk-tales and legends about the waternymphs and water fairies are similar in almost all the Carpathian countries. Czech composer Antonín Dvořák has composed one of his most famous operas Rusalka, which is based on folk-tale motives of Czech fairytales and on nature symbolism (scenario written by Jaroslav Kvapil). The opera was released in the National Theatre in Prague in 1901.



Antonín Dvořák – Rusalka Opera at National Theater in Prague, 1901 ©<http://archiv.narodni-divadlo.cz/ArchivniDokumentFotografie.aspx?ad=12548>

³⁴ E.g. Třeboňská pohádka (TV film) (1982) | ČSFD.cz; <https://www.csfd.cz/film/267456-trebonska-pohadka/komentare/>
Kmotří z blat (TV film) (1983) | ČSFD.cz; <https://www.csfd.cz/film/222790-kmotri-z-blat/prehled/>
Světlíka z blat (TV film) (1992) | ČSFD.cz; <https://www.csfd.cz/film/137674-svetlika-z-blat/prehled/>
Bludíčky a Jakoubek a další pohádky : Pohádky : Nejlepší audioknihy; <https://audioteka.com/cz/audiobook/bludicky-a-jakoubek-a-dalsi-pohadky>
Documentary film "I live the Danube" (in original "Žijem Dunajom"), Braňo Molnár, RTVS & Naturally, 2017; <https://www.youtube.com/watch?v=oD6dDcgMp8k>
Wetlands, Ramsar Sites in Slovakia. For the State Nature Conservancy of the Slovak Republic, by Foto a Kamera KARPATIA, 2013
Oasis of life. Restoration of the Wetlands of Záhorie Lowland. SKYFILM, Ekologické audiovizuálne centrum, Prostějov, ČR, 2008

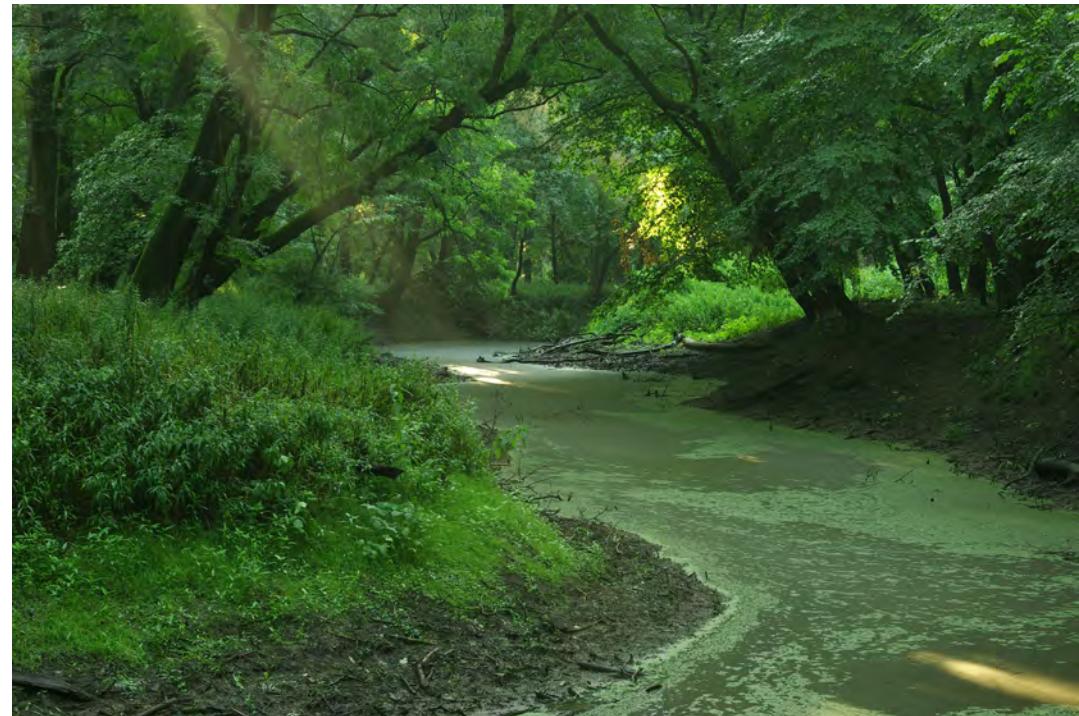
The Danube water ghost is supernatural water being in the Serbian folk mythology. It is imagined as a dwarf with a beard to the waist and a long nose. Its legs are like goats, on the head it has a horn and goat ears and wears a conical hat. It is evil and dangerous for people. It is believed that the Danube has 99 of these ghosts, and that their leader is the hundredth (100th). He carries a drum and a whip in his hand. He uses a drum to call his company and a whip to punish subordinates. He catches innocent souls with his tail and drowns them.

Fen fires are mentioned in relation to peatlands and wetlands of Kysuce (e.g. Chmúra), or in Turiec region in Slovakia: when gas was coming out of a wetland, it created lighting effect and people have contributed it to the existence of these mythical creatures.³⁵

There are several wetland habitats of which there exists a record of being related to these creatures. For example, **Kakvica** – branch of the Morava River near Hochštetno (Vysoká pri Morave), which is part of the Ramsar site **Morava floodplains**. It is an old site; the first information about it dates back to 1271. Presumably, the occurrence of habitat was much larger in the past – the name Hochštetno meant a village at „an elevated place“, the village must have been built on top of the mould.

There lived water nymphs at Kakvica and they used to dance during summer nights. In his pool on the river Morava there lived a waterman. Young boys from Hochštetno wanted to capture one water nymph and they spied on her every night. Eventually, one of them managed to capture her. However, after receiving a human touch she melts away as a sundew drop.

The village was a place of ancient settlement and cemetery. There are Slavic casket graves from 6th – 7th century, as well as from times of Great Moravia. The first information recorded about the village dates back to 1271, when it was called Znoyssa. Croatian colonisers have settled here in 16th century. The Morava River in the vicinity of the village provided a source of livelihood and income from toll collections (transport across the river). The fishermen's guild was set up here in 1697. Local inhabitants practiced the fishing, agriculture and apiculture. They produced utility products from reeds and cattail.



Kakvica – the Morava River branch ©Rudolf Jureček

Several significant natural reserves belong to the cadastre of the village, Dolný les and Horný les, designated to protect rare habitats of alluvial forest. Another one is the reserve Rozporec with humid oak-elm forest passing to the sands with its typical vegetation. Large water bodies originating after gravel extractions from nearby areas also occur in the vicinity of the village.

This area is suitable for cycling and therefore there are many cycloroutes. Apart from that it is hiking, birdwatching and fishing that are among popular sports here.

³⁵ Gilániová, 1983. Rozprávania Alojza Kováča z Riečnice. Vdalo Kysucké Múzeum Čadca; Národopisné informácie II - výlety národopisného ústavu SAV (around 1986).

Water nymphs (Poland)

People of today are not inclined to believe in such things, but in the past, people took it seriously. Whatever you may think about it...

Evenings were like those of today. You came out of the door, gave a whistle on two fingers and right there – water nymphs. If you had not run into the room, you would not have got rid of them.

Water nymphs used to surround people and lure them: “Come with me, come with me, there is a nice path here...” The person was feeling as if he had been walking somewhere on roses, following the nicest path ever, and they were leading him through thick bushes and marshland where he could have drowned. When they trapped a man in this way, the best he could do was to turn his pockets inside out or dress his coat the wrong side out. Then they lost power over him. He lay down on the ground and was not listening to them. And when he ran into his room, they would glitter behind the windows, looking inside and speaking: “Let us in, old man, let us in!” They loved drunken men. One day, women in Skolnita also wanted to have a country dance at home, like a feather-stripping party, so they ordered a musician from Javorník, to play some music for them. But the man met water nymphs in the forest, they surrounded him and were seducing him, so he lay down and did not move. He came in the morning, soaked to the skin, and told the women what the water nymphs had done to him. And another one, going from the pub, was driven by them to climb a birch. He was

sitting there all night. And it was just over a cliff. One more step and he would have fallen and got killed. They would never do harm to a sober one. But people needed to know what to do. Just like that – lay down, not move or dress the clothes the wrong side out.

Most of them could be found in mires and marshland, such as ponds “u Siglanów”, in “Močiarna”. People say they were ghosts from various kinds of mud.³⁶



Ivan Kramskoi - Waternymphs



Witold Pruszkowski, 1877 - Rusalki

³⁶ Pilchówna, M. 1933. O bandurkach abo nocznicach, ka się pieniadze susza i inszych strachach. Zaranie Śląskie, rocz. IX, z. 4, Cieszyn – Katowice, 190-191.

Cultural and social aspect of wetlands is an object of a long term study of Pavel Klvač of the Czech Republic. One of his works is called the Swamp and wetland - two faces of wilderness.³⁷

This paper presents case study on the relationship of inhabitants of a South Moravian village **Drnovice u Vyškova** to local swamp/wetland. There were identified two different approaches to this particular locality; one was called "everyday" approach and the second "environmental" approach. Disparity of these approaches is documented in the way individual participants construct, by means of various symbols and meanings, a symbolic system relating to this site. Environmental experts speak about the "wetland", dominant purpose of which is life, and they undertake measures for its protection. On the other hand, from the point of view of everyday approach, the "swamp" is perceived as wilderness represented by a myth, with death playing its key role. This approach, based on traditional concepts of mythology, is far from environmental approach, which is based on science. This disparity then presents a source of misunderstanding and possible conflicts between individual parties.

Conclusion

We have presented you a sample of material and non-material cultural elements identified during a rapid inventory in Carpathian countries. This exercise motivated and encouraged the interest of other people in this topic and we believe that there will be an opportunity for further development of this study. In the rich and secret Carpathians there remain yet many of the unrevealed and unsearched for cultural values, which deserve publishing, promotion and can eventually contribute to the development of sustainable tourism in this area.

We will be pleased to receive any contribution from you in the form of new information and suggestions for this first phase of cultural values' inventory of this region and to development of the network of wetland sites of cultural values into database of the Carpathian Wetland Initiative and the Ramsar Convention on Wetlands.

The authors of particular cultural aspect of the Carpathians made several proposals and recommendations, which will be made known to relevant authorities and organisations and we believe that it will contribute towards conservation and wise use of these magnificent sites.

More detailed information on particular mapped sites is attached as an Annex of this material.

Acknowledgements

We would like to thank all contributors who worked on collecting information about important and interesting wetland sites and their cultural values in the Carpathian region, or about non-material manifestation of people's attitudes towards wetlands in this part of Europe as well as to those who provided photographs and/or suggestions on how to improve this inventory. We are also grateful to all those who expressed their interest in further cooperation on this subject and we look forward to involving them in further stages of this process. A special thanks belongs to the Ramsar Convention Secretariat staff members, especially Mariam Ali and Tobias Salathé for their support and cooperation in development and implementation of this interesting project.

³⁵ Gilániová, 1983. Rozprávania Alojza Kováča z Riečnice. Vdalo Kysucké Múzeum Čadca; Národopisné informácie II - výlety národopisného ústavu SAV (around 1986).

³¹ <http://www.biograf.org/clanek.php?clanek=v3003>

