

# National Natural Protected Areas in Hungary

# - High lands –



### The Bükk National Park





The country's largest national park with wooded hills was created on 28<sup>th</sup> December 1976. Its present territory, following repeated extensions, is 43,200 ha. The area has an extremely rich natural heritage that requires the highest level of protection. The background of this natural richness is supplied by the geological conditions of the Bükk Hills. The diverse sea sediments of the Paleozoic and Mesozoic Periods were ripped through in several phases by volcanic rocks in the Mesozoic Era, while the outer rim of

the rising mountains were later covered by fresh sediments and acid volcanic rocks. Because of the varied bedrock, a diversity of soils has evolved; and the differentiated morphology has produced micro-climatic conditions that lead to the simultaneous presence of Mediterranean, Carpathian and montane habitats and wildlife communities, as well as numerous relict species of past geological periods



#### The Fátyol Falls in Szalajka Valley still build rimstone bars

The Bükk Hills, rising from a level of 300 m above sea level to 900 m, being positioned between the Carpathian ranges and the Great Hungarian Plain, provides a good opportunity for the meeting of the flora and fauna of continental lowlands and cool, high mountains. The simultaneous occurrence of elements of flora and fauna with such strikingly different origin render this landscape a "clashing zone" from the



#### point of view of biogeography.

## The Purple-edged Copper often visits nectar-producing flowers

The hills are covered by vast forests, in which both altitudinal and latitudinal zones are clearly visible. The rather stunted and gnarled beech forests growing on steep, rocky, northern dolomite-limestone hillsides and screes are strictly protected. They hold several species and glacial relict species. From the point of view of the survival of the exotic-looking and beautiful, rare Lady's Slipper Orchid in

Hungary, the conservation of the rocky beech forests and oak woods of the Bükk Hills plays a crucial role.

The linden and rowan relict forest is found on the steepest western rocky hillsides. It is renowned for its abundance in sub-Alpine relict species.

The characteristic associations of the oak belt are the acidophil oak wood, growing on acid soils formed on slate rock or quartzite, living under warm and dry conditions. Similarly, the relict dolomite oak wood is typical here, which is particularly rich in species. In certain clusters of the latter, 10-15 different orchid species live alongside each other.





Molnár Emese's (5b) and Musa Zsanett's (8a) drawing of the Purple -edged Copper

The scrub forests of the Bükk Hills hold sub-Mediterranean, eastern Continental, Pontic and Pannonian elements as well ass species from steppes, steppes mixed with oak woods and rock grasslands. The scrub forests are often adjacent to various kinds of rock and slope grasslands, which have several types in the Bükk Hills. The Carpathian-Pannonian endemic Common Pink subspecies occurs in calcareous grasslands only at Bélk in the Bükk Hills.

Dolomite is found in a relatively small area in the Bükk Hills, but the rock grasslands growing on it are particularly important. Its most precious association is the rock grassland called *Calamagrostio-Seslerietum variae*, known only to occur at one particular location in theses hills. Among the name -giving, dominant Alpine – sub-Alpine grass species are the Varied Sesleria and a Small -reed species, but the sedge *Carex humilis* also appears at drier, sunnier places. Two rare Orchids occur in this grassland exposed to the North-west: Fly Orchid, the smallest and northernmost member of the genus *Ophrys*, whose representatives are also referred to as insect-imitator Orchids, and *Gymnadentia odoratissima*, whose tiny pink flowers have a very agreeable fragrance.





The Giant Bellflower is a rarity of high esteem in the Bükk Hills - in the left. Roof Gladiolus - in the middle. The strictly protected subspecies of Dame's Violet is endemic to forested ravines in the Bükk Hills on the right.

In the sheltered crevices of the rocks, two warmth -loving plant species from the Tertiary have successfully survived the last Ice Age: the endemic Pannon Ferule and a calamint species, growing on the sunny lime rocks of Bélk, while its nearest site of occurrence is in the sub-Mediterranean limestone region of the Balkan Peninsula.

The sub-Alpine vegetation of the Ice Age is still attested by some species that have survived after the warming on the steep, northern rocks and in the cold ravines of the Bükk Hills. Such sub-Alpine relicts in the Bükk Hills include Yellow Wood Violet that cannot be found anywhere else in Hungary, Alpine Rockcress, Bienn ial Saxifrage, Varied Sesleria, Alpine Clematis and a subspecies of Common Pink.



The Northern Dragonhead blooms at the edges of dolines in Nagymez - on the left. Alpine Clematis - on the right.

In remote and scheduled corners of the Bükk Hills, some animal species that evoke the times of the Ice Age have also survived to the present day. They were able to adapt to the rough conditions prevailing during that time, but with the arrival of the warming period, they withdrew and survived only in small populations. Because of evolutional effects, new species or subspecies have evolved from them, adapting perfectly to the given environment, which is confirmed to a very small living area. One of them is a peculiar, endemic subspecies of the carpet moth, which appears in the Alpine and sub-Alpine zones of the surrounding high mountains, but only lives in a



few square meters of a cold, rocky habitat in the Leány Valley.

#### The "Primeval Forest" in the Bükk Hills

The Bükk subspecies of the Alpine Newt lives on the Bükk Plateau and in forest, ponds, springs and often even in deeper puddles of certain valleys of the Northern Bükk range. The Carpathian Blue Slug recalls the Alpine zone of the Carpathian Mountains, and is in fact endemic to the Carpathians. This relatively large and astonishingly blue animal prefers forests and ravines of a cool and damp microclimate.

The post-glacial relicts from the cold, continental period following the Ice Age are, similar to other relict plants, particularly strictly protected rarities. One of

them is *Cimicifuga europaea*, which can now only be found in Hungary within the territory of the Bükk National Park. The blue-flowered Northern Dragonhead grows exclusively on the sides of the frost retaining dolines on the Bükk Plateau. It was named after its flower that has a characteristic shape, in which Linné imagined a dragon's head.

Plants of warmer climatic periods could also find shelter in places that can warm up quickly, i.e. in the forests and grasslands of the steep southern slopes of the Bükk Hills. An example is the Wig Tree, which practically 'set ablaze' the hillsides in autumn with their leaves turning a blood red colour. The number of animal species occurring in the Bükk Hills can be said to be at least 22,000, although certain taxa have not been entirely explored. The grasshopper Saga pedo brings the atmosphere

of the Mediterranean to the grasslands of the warm, dry southern hillsides of the Bükk range. A characteristic feature of this species is that it only reproduces in Hungary by means of *parthenogenesis*, thus only female specimens occur here.

The most spectacular of the protean insect of the warm o ak woods and scrub forests are perhaps the butterflies. There are some small species that might appear insignificant, yet they represent a natural highlight both because the centre of their range lies south of Hungary, and because the disappearance of their r habitats has led to their decline all across Europe. They include a shining blue, sluggish butterfly species called *Procis geryion*, which occurs in small numbers on the sloping steppe habitats of the most characteristic southern type, flower -rich areas of the Bükk Hills. This species is on the verge of extinction in the majority of European countries .



Some of the greatest ornithological assets of the Bükk Hills are the Imperial Eagles - on the left. Drawings by Kádár Dóra (5b) in the middle. Silk painting by Oravecz Barbara (6a) on the right.

A precious ornithological rarity of the Bükk Hills is the Saker Falcon, whose recent successful spreading is due to a complex species conservation project launched nearly two decades ago. The rock thrush is a characteristic bird of rocky habitats and abandoned quarries, where it can still be occasionally encountered. The Eagle Owl also nests in abandoned quarries. It practically became extinct in the Bükk Hills by the end of the 1970s, but an active conservation programme has succeeded in helping this corpulent owl resettle in the Bükk Hills. Other ornithological highlights of the region endangered diurnal birds of prey, such as the Imperial Eagle, the Lesser



Spotted Eagle and the Short-toed Eagle.

Perhaps one of the most beautiful beetles in the beech forests of our medium elevated hills is Rosalia alpina.

World-famous rarities of the fauna are associated with the cavities of the Bükk Hills. Some species only temporarily visit these subterranean shelters. One of them is the Schreiber's Bat, which only reproduces and winters in caves. In the greater part of Europe, this species has already drifted to the brink of extinction, because of the over-

exploitation and closing-off its caves by man, and because of the decrease in its

insect food. The eternal darkness also hides a Carabid beetle species which is endemic to the Kecskelyuk and the surrounding caves of the Bükk Hills. The blind Carabid beetle called *Duvalius gebhardti* was discovered and described in 1920s.

The smoothest and uniform part of the Bükk Hills is the Bükk Plateau, which is on average 800 above sea level. It is divided into two parts by the Garadna Brook: the Major Plateau, the Minor plateau, and the Minor Plateau. The terrain of t he plateaux is determined by karst formation processes. The main features of the slightly undulating surfaces are low ridges with dolines in between, sinkholes, shafts and caves. Other typical features of the plateaux include tectonic ridges and karstic ra vines at the edges. The beautiful formations of the hills are the punched limestone surfaces divided by cavities and furrows, i.e. the 'devil's plough' kart s

Beside the frequent rows of dolines and twin dolines, the only real collapse dolines in Hungary, as well as the most sinkholes and sinkhole caves are found in the Bükk Hills. Until now, 835 caves have been explored in the Bükk range, 45 of which enjoy strict protection. This is where Hungary's deepest cave, the 250 m deep, István - Lap Cave is located which, together the Szepes Cave and the publicly accessible István Cave at Lillafüred, constitute some of the nicest dripstone caves in the country.



Our copordinator is on the top - on the left. Sokme children from 8b is on the top, too - on the right.

The Bükk Hills' unique jewels are the travertine formations that condense from the water of the karst springs. The travertine builds rimstone bars in the brook, and the gurgling water thus cascades over these little dams. Especially renowed are the Fátyol Falls of the Szalajka Brook, the travertine mound of the Szinva Brook, and the Anna Cave at Lillafüred that formed in a hollow enclosed by travertine. The illustrious list of theses formations could be continued by mentioning the imposing travertine formations in Szentléleki and Sebesvíz Valleys, or at the Harica springs.



#### Landscape

The Vár Hill at Szarvask is a characteristic landmark, and the pillow lava on its slope is a nice reminder of former underwater volcanic activities. Peculiar rhyolite cones, known as 'hive-stones' in Hungarian, are some of the most remarkable



geological and cultural assets along the southern flank of the Bükk Hills.

The abandoned quarries ion the southern Bükk Hills are the last refuges of the Rock Trush, a seriously endangered, rare species in Hungary.

The Bükk National Park boats a great number of archaeological excavation sites. The most remarkable of these are the caves formerly inhabited by primitive man. The oldest findings were stumbled upon in the Lambrecht Kálmán Cave. Tools made approximately 100 thousand years ago have been found there by

archaeologists.



The permanent exhibition furnished in the Orbán House at Szilvásvárad depicts the 300 thousandyear of the Bükk Hills. Visitors can also be acquainted with the geological, botanical and zoological heritage of the national park, as well as the objects made by primitive man living n the caves of the Bükk Hills.

# Eger – The center of the Bükk National Park

#### The entrance of the Eger Castle

Eger is one of the most beautiful towns of Hungary with lots of historic buildings. It lies in the valley of the Eger Stream, in the hill-country, which extends over the western foot of the Bükk Mountains.

The origin of its name is still unknown. One suggestion is that the place was named after the elder ("égerfa" in Hungarian) which grew so abundantly along the banks of the Eger Stream. This explanation seems to be correct because the name of the town reflects its ancient natural environment, and also one of its most typical plants, the elder, large areas of which could be found everywhere on the marshy banks of the Stream although they have since although they have since disappeared. The German name of the town: Erlau=Elren -au (elder grove) also speaks in favour of this supposition. And there is another theory which says that Eger's name comes from the Latin word: "ager" (earth). This theory comes from more recent researchers who think that during the 11th and 12th centuries settlers with a Walloon origin ("latins") in Hungarian) moved to this territory.

The basin of Eger and the hilly region around it have always been very suitable for human settlements, and there are many archaeological findings from the early ages of history, which support this fact.

According to these findings the first generation of the conquering Hungarians occupied the area of Eger at the beginning of the 10th century. Graves at the city limits (Almagyar, Répásteto) of armed men with Arabian coins serve a good proof of this. At the end of the last century more findings dating from the time of t he Hungarian conquest rose to the surface near the "Szépasszony-völgy (The Beautiful Woman's Valley).

Actually Eger's establishment coincides with the church - founding activity of our first king, Saint Stephen. He established here one of the ten bis hoprics that were organised before 1009. This fact has been proven by different archaeological findings. During excavations the archaeologists have found human bones from the 9th century, a circular church and also the remains of a smaller palace. These ex cavations confirm that ancient folklore according to which our first king could watch the building process of Eger's cathedral from the hill which later became known as King's Seat.

This settlement, as a cathedral town, took up an important place amo ng the Hungarian towns even in the early Middle Ages. The natural fundamentals of the surroundings (meeting of plain and hills) made it possible to establish economic and cultural relations between the different parts of the country.

This development was blocked for a short time by the Mongol invasion in 1241, when the town was ransacked and burned down during the episcopacy of Kilit the



Second.

#### The Dobó Square

After the withdrawal of Mongols Eger began to the flourish all over again. Lambert, the bishop of Eger. received a permit from Béla the Fourth for the building a stone fortress. So the nearly destroyed town revived and reached the peak of its medieval development in the l4th and 15th centuries. During this period the forests which spread to the limits of the town were cleared for the most part, and vines were planted in their place. More and more town-houses were built in settlement. the Roads were constructed among which the ones in the inner town were narrow and twisting but those

leading to the northern mining towns were wider. The versions surrounding settlements such as Almagyar and Czigléd were built up along with Eger.

During the reign of King Matthias (1458-1490) Eger began to develop again. The gothic-styled Bishops Palace which can be seen at the present time was reconstructed by the order of bishop János Bekensloer. Building operations continued during the bishoprics of Orbán Dóczy and Tamás Bakócz. The beginning of the reconstruction (in late gothic style) of the cathedral fort can also be linked to their names. After the death of King Matthias, during the bishopric of Hyppolit the so -called Hyppolit Gate was built, this has recently been removed.

After the Mohács Disaster (1526) a sorrowful period began in the history of Eger. During the dual kingship the town changed hands almost every year and the Turkish army came closer as well. This circumstance provided the reason for reinforcing the fortress. In the autumn of 1552, Captain István Dobó and his handful of soldiers were successful in defending the fortress and northern Hungary from the expanding Turkish Empire. Géza Gárdonvi wrote his book. "the Eclipse of the Crescent Moon" in remembrance of this battle, and his work has been translated into



#### **Inside the Cathedral**

Despite the fact that Dobó and his soldiers successfully defended the fortress, it was destroyed during the siege, so it was essential to wholly rebuild it. The reconstruction process of the fortress took place between 1553 and 1596 and Italian artificer officers planned the renovations. It is an interesting moment in the history of the fort that Balint Balassi, our famous poet served here for a few years from April 1578.

While Dobó and his soldiers managed to defend the fortress in 1552, in 1596 the captain at that time and the foreign mercenaries under his rule handed it over. This was the beginning of the 91 year long Turkish rule in Eger. The graceful minaret which was built at the end of the 17th century

preserves the memory of this period. Among all the buildings of this type, the minaret of Eger is found in the northern-most point of the former Ottoman Empire. During the Turkish occupation Eger became the seat of a vilayet which is a Turkish domain including several saniaks.

Eger was relieved from Turkish rule in December, 1687. Although the reoccupation was effected by a siege (which starved out the defenders) and not by a bombardment, the town fell into a very poor state. According to the ... records there were only 413 houses in the area within the town walls which were habitable and most of these were occupied by left over Turkish families.

After the expelling of the Turks, the town was considered by the imperial regiment as a demesne of the Crown. Leopold the First est ablished Eger as a free royal borough in 1688, which meant that it was relieved from the ecclesiastic manorial burdens. This state lasted until 1695, when György Finesse, the returning bishop, had the former legal status of a bishopric town restored by the monarch.



#### The Cathedral

During the era of Rákóczi's insurrection (1703-1711) the town was the centre of the liberated part of Hungary. Prince Ferenc Rákóczi the Second staved several times within the walls of the settlement and his general headquarters was here, too, It is very important to mention that the first Hungarian newspaper, the Mercurius Veridicus (Veracious Mercury) was dated here in 1705, although it was not printed in this town for lack of a printing press. In 1709 Ferenc Rákóczi and Ukranciev, the legate of Czar Peter the First, met here. It

must be added that the legate died in Eger and was buried near the Serbian Church.

In the history of Eger the 18th century was the period of development and prosperity. The bishops of Eger, out of s pecial respect for Ferenc Barkóczy and Károly Eszterházy, created that baroque townscape which has been characteristic of Eger since that time. The most spectacular ones among the baroque buildings are the "líceum" (central building of Károly Eszterházy Te achers Training College), the Minorite Church, the Small Priovost's palace, the Great Priovost's palace (the County Library), the County Hall with Henrik Fasola's two wonderful, wrought -iron gates in it and the Serbian Church. The building processes attrac ted many craftsman, merchants and artists with such talented ones among them as Kracker János Lukács, Anton Maulberts, Franz Sigrist, Josef Gerl, Jakab Fellner and Henrik Fasola. The town population grew suddenly. While in 1688 it was only 1200, in 1787 mo re than 17 000



people lived here. At this time Eger was the 6th town of Hungary (based on the number of its inhabitants). Viniculture also reached its brightest period in these days. The wine-growing area was twelve-times larger than it had been earlier.

#### The Minaret

The l8th century was also important because bishop Barkóczy and Eszterházy decided to found a university in Eger patterned after the ones in Nagyszombat and in Vienna. There were already precedents for this type of education because in 1700 Bishop István Telekessy, who took sides with Ferenc Rákóczy the Second, established a seminary in Eger. Then in 1740 Canon György Foglár founded a Faculty of Law and in 1754 bishop Barkóczy set up a school of philosophy. In 1769 the first medical school of Hungary was opened by the direction of Ferenc Markhot, but it was closed in 1755. Unfortunately the university of Eger could not begin its work because of appoint ... the monarch'. In the building which was marked out for the university we can find the Archdiocese's Library (the most beautiful baroque library in Hungary), and an astronomical museum with original equipment, which was the second museum of this type in Europe. It is probably interesting to mention that between 1946 and 1948 there were several more efforts to found a university in Eger but these attempts failed, too.

In 1804 a significant change occurred in the organisation of Eger's bishopric. The monarch made this town a centre of archbisphoric, but the bishoprics of Szatmár and Kassa separated from it.

The Reform Age (1825-1848) left several lasting marks on the life of Eger, especially on its culture. Pyrker László János, the archbishop of that time founded a gallery which he donated to the Hungarian National Museum because the town did not guarantee an appropriate place for it. It was Pyrker's present which served as a base for the collection of the Museum of Fine Arts that was opened in 1900. In 182 8 Pyrker established the first Hungarian teachers training college in Eger and he was the one who ordered the construction of the basilica which was built in neo-classical style, in accordance with the plans of József Hild. On the basis of its size this ba silica is the second among the churches of Hungary. In 1837 János Joó, an art teacher, began to edit Hungary s first technical journal with the title "Héti Lapok".

As an achievement of the 1848-49 War of Independence in 1854 Eger was liberated from the economic authority of the church whom the town obtained agreement to commute the paying of the novenary and the charge for 50 000 forints.

Unfortunately (unlike other towns) Eger's civil development didn't become faster, as distinguished from other towns, after 1849 and the Compromise of 1867. Industrial development was represented only by the mill, the tobacco factory and the

sheet-iron works which were founded in the Reform Age.



Catholic Church

During the decades after the turn of the century the character of a school-town was dominant in Eger. Because of its schools and other cultural institutions it became known as the Hungarian Athens.

At the beginning of the century, in 1904, the first independent theatre of stone was opened and the canalisation and the provision of public utilities began as well. In 1933 Eger was one of those towns that first got the permission for opening a spa.

In the decades after 1945, industrialisation of the town commenced because of the change of regime. As a consequence, Eger's former character of a cultural centre began to fade, which diminished the patina of the settlement.

It was a great good fortune that in 1968 the baroque inner city was preserved. So it was saved from the deterioration (and from the construction of unsuitable, modern buildings), that ??adversely?? affected ot her towns. In 1978 the town was rewarded with a Hild-medal for its excellent work in protecting the local monuments. It was also in appreciation of the town's protection of its heritage that the Hungarian seat of the ICOMOS (International Council for Monuments and Sites) was located into Eger. In connection with the outlining of Eger's history some of the local features must be mentioned. Such as the "Egri Bikavér" (Bull's Blood of Eger), which is an excellent wine, the "Egri Víz" (a type of brandy with alcoholic content) made from the middle of the 18th century and the "bujavászon" (a special Turkish tissue). It is also important to note that in Eger thermal waters can be found with radioactive content which created the basis for a spa and later for the swimming sport. Regarding the future, after the change of regime it became clearer and clearer that connections to the town's ancient past should be found. These are the further development of tourism, vine culture and cultural life.

