

NATIONAL PARK “DJERDAP”¹

Source:

B.Panjković, N. Pil (edit) (2004): PROTECTED AREAS ALONG THE RIVER DANUBE IN SERBIA. CSD presentation, Institute for nature protection of Serbia, Novi Sad

Protection

1st category – natural property of outstanding significance for the Republic of Serbia

The total area of the national park is 63500 ha (is proclaimed in 1983), with a protective zone of 93967 ha, thus being the largest national park in Serbia. The manager the National Park “Djerdap” is the Public Company “Nacionalni park Djerdap” with headquarters in Gornji Milanovac.

IBA National Park “Djerdap” – YU 34 SE (65000 ha)

It is on the national list of proposals for Biosphere Reserve Network (UNESCO, Project “Man and biosphere”)

Location

The National Park “Djerdap” is located in Eastern Serbia, in the lower course of the river Danube through Serbia, on its right bank. It spreads from the fortress “Golubacki grad”, located on the 1040th river kilometer to the Roman excavations at Karatas, on the 942nd river kilometer. The Danube spreads 98 kilometers along the Lake of Djerdap, comprising part of the river and the wooded-mountainous belt of the mountain of Kučaj. About 9% of the park area (5500 ha) is the water area of the Danube. The banks of the Danube are 45 meters above sea level while the steep slopes go up to the highest crests of about 800 meters above sea level.

Basic values

The Djerdap gorge is the largest and the most famous water breakthrough in Europe connecting the Danube with the water basins of the west and the east of Europe. Djerdap is the longest and the most complex polygenetic valley made up of three ravines, two canyons and three extended valleys with very jagged bank relief. The origination of the Djerdap gorge is a unique phenomenon, reflection of age and complex geological processes. In the Neogaeian age a large split happened in the Carpathian Mountains and the “Ancient Djerdap” was formed that was

¹ Szabados K., Molnár Zs. (szerk.) (2008): A X. MÉTA-TÚRA túravezető füzet. Kézirat, MTA ÖBKI, Vácrátót.

later filled with water from the Pannonian sea, then from the Pliocene lake and the water course of the Danube.

There are hardly any areas in Europe where on a relatively limited space there are so many geological, geomorphologic, mineralogical, petrographic, paleontologic, climatic, edaphic, phyto-cenological, phyto-geographical, floral, faunal but also cultural-historical and archeological phenomena. Among the geomorphologic structures specially the area of Veliki Strbci is distinguished, as well as Mali i Veliki Kazan (the gate of Europe), where the Danube is the narrowest (150 meters) and the deepest (90 m).

The major cultural-historic values of the National Park "Djerdap" are represented by the Neolithic settlement of Lepenski Vir, the medieval fortress of Golubacki Grad and the confirmations of the Roman culture in this part of the world like Tabula Traian and Diana-Karatas.

Vegetation

The specific climate of the Djerdap gorge has not changed significantly from the Pliocene age up to now. After the withdrawal of the Pannonian sea, especially the Pliocene lake and when dry land was created, this area became one of the largest refugia of relict and rare species and ecosystems, as well as the ancient human settlements in unfavorable periods of Glacial Era.

Numerous rivers, small rivers and streams emptying into the Danube along the total length of the gorge. The Djerdap gorge with its numerous fissures, canyons and valleys is characterized by specific meso-climate, with increased moisture of the air, decreased annual oscillations of temperature and moisture of the air and soil, as well as the quantity of precipitation.

Due to these climate factors on karstic terrains complex, various, rich mixed vegetation developed ("jungle on karsts"). Relict forests are dominating, represented by poly-dominant and oligo-dominant communities with more edificers in one association. The total of 35 forest associations have been described in Djerdap, making the total of 50 associations along with herbaceous associations. Climatogenous association is the ass. of *Quercetum conferatae-cerris serbicum* that is located on lower thermophilic slopes, while on plateaus and sheltered damp valleys the mountain beech (ass. *Fagetum montanum serbicum*) is dominating. Among the bushy association there is the association of *Carpinetum orientalis* and the association of lilac (ass. *Syrigentum vulgare*). The grass vegetation is of secondary character, originated after the felling of trees and clearing the forests and shrubbery. The terraces between the Danube and the crests are dominated by grass associations with the major builders: fescue (*Festuca valesiaca*), gold beard grass (*Chrysopogon gryllus*) and *Danthonia calycina*.

Flora

The richness of the Djerdap flora is reflected in the presence of more than 1100 plant species. Among the rare and most significant ones are: Turkish hazel (*Corylus colurna*), Pancic maple (*Acer intermedium*), rock cherry (*Prunus mahaleb*), lime (*Tilia caucasica*), nettle-tree (*Celtis australis*), butcher's broom (*Ruscus aculeatus*), holly (*Ilex aquifolium*), yew (*Taxus baccata*), blagay's daphne (*Daphne blagayana*), smoke-wood (*Cotinus coggygria*), bladder-nut (*Colutea arborescens*), shrubby (*Staphylea pinnata*).

Fauna

The fauna of this area is very rich and various, conditioned by special habitat. The diversity of all research groups is rather high.

The fish fauna of the Danube in the Djerdap accumulation is very diverse. Among them the most significant are beluga (*Huso huso*), Danubian sturgeon (*Acipenser gueldenstaedti*), stellate sturgeon (*A. stelatus*), ship sturgeon (*A. nudiventris*), Danubian shed (*Alosa pontica*) and others.

There are also very attractive bird and mammal species.

So far 170 bird species have been noted, but it is thought that at least 200 bird species visit this area in various periods of the year. There are 120 nest-builder species while the others are passers-by, stray-birds or those that spend the winter there. Among the nest-builders there are 2 pairs of black storks (*Ciconia nigra*) and 3 pairs of white storks (*Ciconia ciconia*). The birds of prey that build their nests here are especially attractive: lesser spotted eagle (*Aquila pomarina*), short-toed eagle (*Circaetus gallicus*), golden eagle (*Aquila chrysaetos*), booted eagle (*Hieraetus pennatus*), honey buzzard (*Pernis apivorus*), black kite (*Mihus migrans*), peregrine falcon (*Falco peregrinus*) and others. Among the rare bird species are: hazel grouse (*Bonasa bonasia*), rock partridge (*Alectoris gracea*), as well as the species represented in lesser number: corncrake (*Crex crex*), eagle owl (*Bubo bubo*), roller (*Coracias garrulous*) and alpine swift (*Apus melba*). Among those species that spend the winter here are: pygmy cormorant (*Phalacrocoras pygmaeus*), smew (*Mergus albellus*), goosander (*Mergus merganser*), goldeneye (*Bucephala clangula*), pochard (*Aythya ferina*), mute swan (*Cygnus olor*) and others.

The mammal fauna of Djerdap is diverse. Numerous species represent the characteristics of this region, among them are: wildcat (*Lynx lynx carpathicus*), bear (*Ursus arctos*), wolf (*canis lupus*), jackal (*Canis aureus*), chamois (*Rupicapra rupicapra*), deer (*Cervus elaphus*), otter (*Lutra lutra*) and others.

Status evaluation and problems

The natural values of the National Park have been exposed to the effect of man for centuries. The exploitation of the wood mass and soil was mostly expressed

between the two World Wars and in critical times. This led to ultimate degradation of the ecosystem and its regeneration is very slow. Most of the forests were turned into underbrush and bad shoot forests and the warm, arid climate during the summer hindered their regeneration. The present underbrush and forests with the domination of one or two species are of secondary character originated and maintained by constant use of the wood mass. At distant and less accessible parts of the National Park, the beech and oak forests have been preserved, proving their high potential.

The water ecosystems of the river Danube are exposed to increasing anthropogenic pollution of the Danube. Larger and smaller garbage deposits are present along the main road and the settlements that are located on the bank of the river. All this goes into the Danube. Apart from ecological pollution the landscape characteristics are also destroyed.

Conservation measures

In accordance with the national legislation in the area of the National park, a three-level protective regime has been established. The 2nd -level protective regime comprises the shoot forests in which the revitalization activities are implemented, as well as afforestation by nursery plants and seeds in order to create stable forest stands. The 3rd -level protective regime controlled activities are carried out in forestry, hunting and fishing in accordance with the mandatory laws in this field and the prescribed Protection and Development Program of the National Park of “Djerdap”.

In the work with the population of endangered animal species activities have been planned for the increase of the number of boars, wildcat and chamois, which populations are very scarce or are on minimum level. There is a plan to build a center for their breeding and reproduction aiming to return them back to their habitat from which they disappeared in Serbia.