

## **Dajti National Park A Recreational Area for Citizens of Tirana, Albania**

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Abstract: Dajti National Park is one of the 12 National Parks of Albania, declared as a protected area in 1961. From the administrative of view, it is included in the Tirana District. This Park is managed by the general Directorate of Forestry (Ministry of Agriculture and Food). Total protected area reaches 10,269 ha. It represents an important additional to the presentation of natural wealth Park.

The intention of this paper is to provide visitors with the essential information on natural history and cultural importance of Dajti National Park. It should come into hands of every single visitor and draw his attention to numerous attractions of the first Albanian National Park (field trip, visitor observation, interviews etc.). The results showed that various methods allow a thorough analyses of visitor activities as a basis for the ecologically and economically sustainable management of recreation and conservation areas.

### **INTRODUCTION**

Dajti National Park (DNP), crossed by Tirana-Bizë road, a key route connecting Central Albania with north east of the country, is an area of great scenic value: Mt. Dajti is nick-named “the natural balcony of Tirana”, as it dominates the capital of Albania with green mass. (Photo 1).

It is positioned at the eastern part of the broad plain of Tirana (26 km east of Tirana and 50 km from the Rinas International Airport).

The zone comprises three mountain chains (whose main peaks are Mt. Brari, 1214 m, Mt. Dajti 1513 m, and Mt. Priska, 1365 m). Divided by two valleys: one was excavated by Tirana river, forming impressive deep gorges (Photo 2); the other is crossed by the road to Biza (Priska pass).

The geological base of the area, which is located within the borders of the DNP, as its large surrounding area, is part of a large limestone environment with layers of Mesozoic era immediate surface. The basic kinds of stone that we can differentiate are limestone and dolomite with a number varieties which are visible in relief differences and in either absence or presence of water on the surface. The area contains many characteristic limestone (karst) rocky formations that are particularly well represented on the plain or slopes and include some remarkable swallow holes of 20-30 m in diameter and up to 50 m in depth. Water percolating down through the rocks from these holes has eroded a complex system of underground caves, some of which have still to be explored. The area behind the Dajti mountain contains one of the most important high quality aquifers for Tirana Capital.

### **PLANNING AND IMPLEMENTATION OF DNP MONITORING PROGRAM**

Last year, a training course was organized at the National Agency of Environment in Albania. Participants included specialists from the Hydrometeorological Institute, the Geographical Studies Center, General Directorate of Forestry, Regional Environmental Center, Museum of Natural Sciences, ECOTOUR Agency and WWF, International Mediterranean Program. This project is funded by European Union’s Phare Program, which provides grant finance to support its partner countries in central and eastern of European Union membership.

The training course defines analytical methods used for analyzing various parameters. Results of the monitoring of the DNP must accurately present the state of the Park and its habitats, potential risks for the Flora and fauna and its organisms, risks for the visitors, tourists, and people that inhabit the Park, and present the unique ecosystem to the scientific world. Rich wildlife, rare or endemic animal and plant species, exceptional scenic beauty, high biodiversity, rich cultural values, traditional villages, live traditional activities. All this features of DNP have attracted tourists since the early 70s. Nowadays, although the Park’s infrastructure remains very poor, many visitors come to the Park in order to learn about it and enjoy opportunities but lodging facilities and other infrastructure are still lacking. In addition, the people of DNP lack knowledge and experience in the services sector. Yet, the threat of a destructive uncontrolled tourism is always present.

Aiming at promoting quality tourism as well as raising visitors' environmental awareness the Ministry of environment together with INSEEA have started a series of initiatives in many levels. A lot of people were trained to be able to work as eco-guides. Contacts were made with ecotourist offices and NGOs in Albania, Kosovo and Macedonia, so that an ecotourism network is being established. Efforts were made towards the promotion of educational tourism. The efforts for the development of an alternative tourism are actively supported by the Government and European NGOs, members of which participate as volunteers in pilot ecotouristic programs.(Photo 3).

Publications for the DNP include a second edition for visitors, published in 1998, with title: "Dajti National Forest Park" (Eco-Guide), in Albanian and English, also posters, booklets, leaflets, and other important materials.

### **DEVELOPMENT OF DAJTI NATIONAL PARK MANAGEMENT**

The need for maintaining the integrity and the interconnectedness of all types of habitats in the DNP is unquestionable, but they are rare and more liable to destruction or degradation than the others. Such habitats in DNP are remnants of the old gallery forest like beech wood with *Fagus Sylvatica* and *Ilex aquifolium*, on the higher altitudes of the Dajti mountain. Pine wood-stands of Balkan pine with *Pinus leucodermis* localized in the middle of beech forest. Deciduous submountain wood with *Castanea sativa* on NW slopes of the Dajti mountain, Mixed deciduous wood-stands of oak forest with *Quercus trojana*. Mediterranean *Juniperus oxycedrus* on the lower altitudes. Aiming at the conservation of these sensitive and very important areas for wildlife, the Ministry of Environment initiated a research program for the conservation and the management of DNP. The study will concern the existing situation of the Park, and investigate the parameters which effect their preservation and it will propose measures for their protection. Emphasis will be given to activities around the Park in order to ensure better management.

The main goals and objectives will be:

- Develop an integrated, comprehensive DNP management program including program and project evaluation which includes an action plan to identify and prioritize those areas of the Park at risk, and to achieve and maintain Park health,
- Improve communication among affected private individuals, interested citizens and representatives of local and state agencies;
- Establish a process for the coordination, cooperation, education, and involvement of citizens residing in the Park,
- Conserve and improve the wildlife habitat,

- Support the socio-economic needs of Park residents.

DNP must be considered as one of the best places in Albania for environmental education activities because a high biodiversity exists in relatively small area. Among priorities of the Institute for Natural Studies and environmental Education in Albania (INSEEA) is to promote in DNP and to establish a Center for environmental education activities in Tirana Capital.

Thus, in the year 2000, INSEEA launched an environmental education program for schools which visit Dajti mountain during their field excursions. The program contains a slide show presentation, "playing" educational games at the information Center of INSEEA and guiding in the National Park. This program continued in 2001 and its main characteristic is that children have the opportunity to appreciate some of Park values and enjoy wildlife and endangered species on site, without of course causing any disturbance. This is the only environmental education program running on a permanent basis in a National Park. The program is flexible enough to be organized according to the time schedule of schools and in some cases when schools stay for more than one day, a different program is followed with more outdoor activities. Some weeks before the arrival of each school at the National Park, a printed educational portfolio about DNP is sent to them, so that pupils are introduced to the main issues. This portfolio contains a booklet on the values of National Park for teachers and a series with exercises, games, on all the specific elements of the area i.e. fauna, flora, agriculture, monuments etc. which can be used in the classroom.

### **RESULTS AND DISCUSSIONS**

The vegetation of the Dajti mountain region shows a central European character at higher altitudes, characterised by beech forest *Fagus Sylvatica* and hornbeam *Carpinus Orientalis*. On higher ground, the heaths are dominated by the *Junipers oxycedrus* and *Junipers communis*, and by ericaceous shrubs including *Erica arborea* and *Arbutus unedo*. At lower altitudes, the vegetation becomes sub-Mediterranean type, characterized by mixed oak forest, including *Quercus cerris*, *Quercus frainetto* and some stands of *Quercus trojana* on the southern facing slope. *Pinus leucodermis*, a species which is restricted to the Balkan Peninsula and to few localities in southern Italy, is also present.

On the southern slopes, sub-Mediterranean *Quercus pubescens* with manna ash (*Fracinys ornus*) and Mediterranean *Junipers oxycedrus* are frequent.

The region of the DNP is one of last areas in Europe with extensive woodland pasture. This management system, widespread in Europe since the Mesolithic times, involves the pollarding young trees, mostly oak, hornbeam and beech. It can be

considered an appropriate use of sustainable resources in a wooded region although in the Dajti area, at present, overgrazing damages both trees and pastures with consequent environmental degradation, particularly on the eastern side of Mt. Dajti.

The dense sibiljak characterized by clumps of evergreen shrubs, that covers vast areas of the hills and lower mountain slopes, derives partly from this management region.

The beech forest, which extends from 1000 m a.s.l., can be considered as an almost untouched forest, where it is possible to distinguish two different belts of trees: the first one with quite old individuals (more than 200 years) which have diameter of a meter or more and height of 25-30 m and the second one with young trees succession. The endemic elements are particularly important.

A characteristic and widespread endemic species of this mountain is *Ramonda serbica*, of the Gesneriaceae Family, which is distributed in the eastern part of the Dajti mountain on the rocks at the altitude of 1500-1550 m a.s.l.

Agriculture within the existing boundaries of DNP does not really exist, if we exclude the present of a considerable number of goats, that are apparently abandoned and spread without control in and outside the forest. Their presence causes serious damage to the natural forest regeneration and creates erosion problems along the steeper Park slopes. (Photo 4).

Sheep, cows and horses graze on the eastern side of the Park, mostly outside the borders (but in an area that could be included in the protected area, without any need for specific restrictions to agro-pastoral activities).

The agriculture in the areas surrounding the NP is unfortunately very poor, especially in the valleys behind the Dajti mountain. Animals such as horses, mules or donkeys are bred and used as a means of transport, especially with no road existing (only mule tracks or paths connect most of villages or isolated houses around the Park to the two existing main roads). The farmers mostly grow products for self-consumption, products that are also sometimes sold in the small markets of Tirana.

The Park is very interesting from the faunistic point of view, with many species considered of "relevant naturalistic and conservation values", (4 amphibians, 8 reptiles, 11 birds and 9 mammals). Some of these species are present in quite restricted habitats. Such habitats include ponds and small water streams, which an area between a few square meters to thousands, that nevertheless are vital for the breeding of rare species of high naturalistic value. Another habitat relevant is the rocky environment of the river Tirana gorges. This is the breeding habitat of two diurnal birds of prey: the Golden Eagle and Peregrine falcon.

Furthermore, this habitat represents a potential area of shelter and is the location of lairs of two big carnivores, the brown bear and the wolf, whose

presence is often recorded in the area. The bend underneath the beech forest holds low density bushes of forest formations, and all along some slopes like Mt. Priska or Mt. Brari.

The rivers (Tirana, Tërkuza, Erzeni) present in the plain area, outside the existing Park border, are suitable for stable fish communities and include typical vertebrate communities such as *Bombina variegata* or *rana balkanica*. The rare Otter, endangered all over Europe, still lives with few specimens along the river Erzen. (Map 1)

## CONCLUSION AND OUTLOOK

- Formation and feature of today's relief in the DNP is the result of numerous occurrences in geological past which took place in a large area of Albanide ranges during the formation of mountain chains. While that was happening, very porous and low porous areas were created by movement and erection of large blocks of stone, broken by regional and local faults. The compact or imporousness of mostly dolomite strata of Mesozoic era had, as a consequence, water penetration up to the different depths in existing mountain ranges and the other areas with changeable superficial and sub-terrestrial water flow, and more or less visible process of karstening that was taking place of the rocky relief.
  - Specific hydrogeological characteristics of dolomite rocks have conditioned the possibility of sub-terrestrial spring waters creation, but also canyon incision in the
  - cherty layers of Cretaceous age.
- Transitive type of climate between coastal and continental with microclimatic diversities makes summer pleasant and sunny, while on the other side winter is relatively harsh and snow. That is why the Dajti National Park very a convenient place to spend summer vacation at, particularly for the individuals and citizens from Tirana and its surroundings who can hardly bear hot summer weather and for whom vacation at the sea would mean too heavy thermal burden. Spring and Autumn are the most convenient seasons for active vacation walks and sport activities. At that time, mornings and evenings are mostly fresh, in early Spring and late Autumn also cold, while during the day it is either pleasant or fresh. Even if the average sensation of agreeableness is cold in winter, at the same time winter days could considerably differ from each other. However, the vacation at DNP could be also pleasant in the winter under the most adverse biometeorological conditions, should the clothes be appropriate and the physical activity increased.

THE MAIN VEGETATION TYPES PRESENT IN THE PARK				
COMMUNITY	CHARACTERISTIC SPECIES	PLACES	ALTITUDE	EXPOSURE
BEECH WOODS	<i>Fagus sylvatica</i> <i>Ilex aquifolium</i>	Dajti Mountain	1000 – 1500 m	North – West
PINE WOODS	<i>Pinus</i> <i>Leucodermis</i>	Dajti Mountain	1100 m	West
DECIDUOUS SUBMOUNTAIN WOODS	<i>Castanea sativa</i>	Dajti Mountain	600 – 900 m	West
MIXED OAK WOODS	<i>Quercus cerris</i> <i>Quercus frainetto</i> <i>Quercus trojana</i>	Dajti Mountain and Priska Mountain	600 – 800 m	North East
SIBILJAK WOODS	<i>Carpinus orientalis</i> <i>Ostrya carpinifolia</i>	Dajti and Priska Mountain	600 – 800 m	West
HILLS EVERGREEN WOODS	<i>Erica arborea</i> <i>Arbutus unedo</i>	Lower slopes of the Tirana gorges	300 – 600 m	West
RIPARIAN WOODS	<i>Platanus orientalis</i>	River Tirana	200 m	West
CONIFEROUS WOODS	<i>Pinus nigra</i> <i>Pinus sylvestris</i>	Dajti Mountain	1500 m	North – West

- The characteristics of the Park are a variety of the plant and animal species. Plant species are layers of trees, bushes, low vegetation and layers of mosses. There is a very intensive life in the ground where we can find roots of high plant species mushrooms and bacteria as well as part of animal world, which decomposes dead plant and animal stuff. Very important are dead standing trees which represent a home for numerous birds, insects, rodents and other animal species.
- All fundamental things that do determine the Park, make a very fragile structural and functional complex, sensitive to natural changes and to prohibit human actions.
- The Dajti National Park according to the convention of IUCN is obliged among other things:
  - to protect the natural and landscape value of area of natural and international importance for spiritual, scientific educational and tourist activity.
  - To respect geological, geomorphological, fundamental and esthetic attributes of classification.
  - To ensure the future of visits and spiritual, scientific, educational-recreational activities in harmony with the natural and cultural environment.

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