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**NATURA 2000 AS A MULTIPLYING FACTOR IN THE RECREATIONAL USAGE  
OF BULGARIA'S TOURISM RESOURCES**

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**Abstract:**

The European environmental network NATURA 2000 aims at the long-term preservation of the different types of natural habitats and populations of species, which are of European significance. A distinguishing feature of the Bulgarian flora, and of the modern and natural vegetation, is its endemic and relict character. Due to its middle and specific location in the West Palearctica of the Balkan Peninsula, Bulgaria possesses a particular interesting fauna. Taking into account all this biological diversity, one of the requirements, imposed to Bulgaria by the European Union in the process of its accession under Chapter 22 "Environment", Sector "Preservation of Nature", was the preparation up to the end of year 2006 of lists with Protected zones for establishing and sustaining within the country of a network of territories compliant in purpose and structure to the sites of the European environmental network NATURA 2000.

**Key words:** European environmental network NATURA 2000, the Bird directive, the Habitats Directive

The European environmental network NATURA 2000 aims at the long-term preservation of the different types of natural habitats and populations of species, which are of European significance. **It consists of Special Protection Areas (under the Birds Directive) and of Special Areas of Conservation (under the Habitats Directive)\*.**

Within the framework of the legislation of the European Union concerning the protection of nature, preservation of the species and the habitats are defined through two main Directives, namely – EU Directive 79/409 for preservation of the wild

birds and EU Directive 93/43 for preservation of the natural habitats of the wild flora and fauna (Prichard, D., Z. Vipitski, S. Dobрева, 2002).

The EU Directive 79/409 for preservation of the wild birds, shortly named the Birds Directive), was adopted on April 02, 1979 and was put into force in April 1981. Its main purpose is to impose measures for sustaining the population of the naturally existing wild birds in the member countries of the European union, as well as to preserve the necessary diversity and the habitats needed for their protection. These should be achieved through the creation of protected areas; through sustaining and management of the habitats within the protected areas; through restoring of the resource biotypes and creating of new ones. The rare, vulnerable and endangered species (the species from Appendix I of the Directive), as well as all the regularly met migrating species, are subject to special

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\* The EU Directives are legislation form, specific for the European Union. In order to assure their implementation, they are necessary to be transferred into the national legislations, while the method of harmonization of the national legal and administrative system is left a freedom of action to the member countries.

environment protection measures in regard to their habitats. This requires the detachment of the Special Protection Areas (SPAs), imposing of measures for averting of pollution and deterioration of the habitats and etc.

For the migrating species, all the possible should be done for the protection of their nesting locations, brooding and winter surviving places, and for the key places alongside of their migration routes. A necessary attention should also be paid to the wet zones of international importance. Similar measures are envisaged for imposing also for the regularly met migrating bird species, which are included in Appendix I. Special Protection Areas are defined for these species for the time of their nesting, brooding and winter periods alongside of their migration routes.

It should be emphasized that this regulatory document allows to every state to implement its own selection criteria for the place that are defined as such type of areas. In the same time, the member countries must submit reliable information to the European Commission in regard to the Special Protection Areas.

**The EU Directive 92/43 for preservation of the natural habitats and of the wild flora and fauna is a continuation of the Convention for preservation of the European flora and fauna and of the Directive 79/409 of the Council of the European Economic Community for preservation of the wild birds on a higher quality level and is a basis for the creation of a coordinated European network of site with special protection – NATURA 2000.** It was adopted on May 21, 1992. The member states are obliged to take necessary actions and measures for implementation of its requirements in the national legislation. The directive was altered in 1994 in response to the accession to the European Union of Austria, Finland and Sweden. The Directive 97/62, adopted a little bit later, changed Appendix I and Appendix II.

**The main goal of this international initiative is to contribute for preserving of the biological diversity, while the local economic, cultural and regional specifics are also to be observed. This Directive is considered to contribute to the realization of the Sustainable Development Concept.**

The core of the Directive is the part, which affects the preservation of the natural habitats of the species and preservation of the species themselves. It entitles six Appendices. In the first one, all the types of natural habitats of public interest pointed out, and the conservation of which requires **Special Areas of Conservation** to be declared.

Subject of protection under the both Directives are more than 140 natural habitats and more than 600 plant and animal species of Community importance (EU importance). Both the member and the accessing countries are obliged to determine the spread of these habitats and species within their territories and to set certain part of them under protection in order to manage them with an aim of conservation and sustainable usage.

The European Commission has decided that every country should preserve through inclusion in NATURA 2000 of around 20% of territorial range. In this regard, as its own contribution to the European environmental network NATURA 2000, Bulgaria should protect more than 80 types of habitats, as well as the most important habitats of 100 plant species and 226 animal species, defined by the above-mentioned EU Directives.

Bulgaria is one of the richest in biological diversity countries in Europe.

In the plants covering of the country dominate the tree forest communities, which occupy some 3,348,000 ha. This is 86.5% of the total area of the forests and 30.16% of the territory of the country. The plantations of natural origin occupy 2,295,000 ha, which is 59.3% of the forested areas. Due to the mass forest

planting in the past, the forests of artificial origin are 1,032,100 ha (26.7%). The maple as a tree or bush-type of species of particular preservation importance has its own place in the statistic records. It comprises some 29,500 ha (0.5%) [Bozhinov, 1994]. According to this very same author the coniferous trees cover 1,107,000 ha, which is 33% of the forested areas. The deciduous high-stem forests are 710,500 ha (21.4%). The plantations of low productivity and low value are also significantly present, which requires they to be replaced by tree species of higher productivity and higher quality of timber. The areas occupied by these plantations are 608,100 ha (18.3%). The sprout plantations, which may grow to high-stem ones, through application of longer cutting turns, are 388,400 ha (11.9). The low-stem plantations, consisting mainly of pseudo acacia, have 3.5% of the forested areas or 117,000 ha.

The average age of the forests is 42 years. The most widely spread are the plantations of Age Class II (21-40 years) – 31.9% and those of Age Class I (up to 20 years) – 30.6%. The average forest productivity is of type III and thus the highest is the average productivity type of the sprout forests, which are to be transferred into the high-stem type, and the lowest one belongs to the forests for reconstruction – type IV. The average density of the forest is 0.75, while of maximum density are the low-stem forests – 0.84, and of lowest are the forests for reconstruction [Bozhinov, 1994].

Out from the forest-tree communities, the biggest share in the vegetation comes to the ordinary beech, to the oak (cerris), to the 'Quercus Frainetto', to the durmast, to white pine-tree, to the spruce, to the pine-spruce (*Abies Alba*), the black pine-tree and etc.

The communities dominated by evergreen sclerophilic species are of a limited spread, namely downstream of the rivers Struma, Mesta and others.

The second place in spread comes to the grass communities. Of them the greatest is the territorial range of the "Dichantium Ischaemum", of the *Poa Bulbosa*, of the "Andropogon Sp.", "Nardus Stricta" and others. Typical are also some bush-type communities, such as of the "Paliurus Spina-Christi", the sumac, the lilac-shrub, the red and the Siberian juniper and others. From the semi-bush type of communities, the most significant areas occupy the mountain savory, the white wormwood and other [Velchev, 1977].

A significant part of the vegetation species found in Bulgaria occupy the territories of the upper boundary of the zonal vegetation (600-700 m above the sea level), as well as of the oak-hornbeam stratum (from 700 to 1000-13000 m above the sea level) and of the lisophilic deciduous forests. The richest in species are the vegetations of the Stara Planina (the Balkan mountains), followed by the vegetations of the Rodopi, Pirin and Rila mountains, the karst territories of the Kraishte and Osogovo mountains, the Strandzha mountain, the valley of the Strumer river, the Thracian lowland, the Tundzha hill region, the Black Sea coastal area, the Dobrudzha and the Danube Plane. In vertical direction, up to 500 m above the sea level, one can find some 2246 species, from 500 to 1000 m – 2137 species, from 100 to 2500 m – 780, and above 2500 m – only 144 constantly structured species. The carbonate rock base is a precondition for a rich content of species [Peev et al., 2004].

**A distinguishing feature of the Bulgarian flora, and of the modern and natural vegetation, is its endemic and relict character.**

The endemite species include 170 Bulgarian endemite species and 100 sub-species, as well as some 200 Blakan endemite species and sub-species. The Bulgarian endemite provide 4.9% of the country's flora, which makes it one of the most unique ones in Europe. This

percentage will increase significantly – 8% if to it are added the endemic sub-species. According to Peev et al. (1994) this percentage would increase even further more, if the Balkan endemite species were added to it. And not a small part of these species were formed on the territories of our country, mainly in the Rodopi, the Pirin and the Slavianka mountains. And in the Quarternary period they became spread to the rest areas of the Balkan Peninsula.

The spread of the Bulgarian endemite species and sub-species is quite uneven and is connected mainly with the mountains. We should mention that the endemite species on the territory of Bulgaria reflect the specifics and the genetic particularities of our flora. The narrow regional Bulgarian endemism proves that the territory of the country is rich in typical ecologic niches and has a diverse phito-genetic and phito-climatic history. The greatest percentage of the Bulgarian and the Balkan endemite species of the higher flora is a result of various factors, and the highest importance among them comes to the location of Bulgaria between the European deciduous forest, steppe and Mediterranean phito-climatic regions and to the various geological and geomorphologic characteristics, which can be seen in presence of high mountains, lowlands and planes and the defined by them climatic characteristics and differences, as well as to the maritime influence. This allows the spread of quite a lot of different in nature vegetation elements: arctic, sub-arctic, Middle European, steppe and Mediterranean. The broad range ecological (environmental) niches is based on the complex relief, the diverse rocky base, the variety in the soil coverings, the broad variation of the hydrological conditions, the rich geological history and so on [Peev et al., 1994].

As it has been already mentioned, a major characteristic of the modern natural vegetation in Bulgaria is the presence of significant number of plants, as well as of vegetation communities of ancient origin –

the so called relicts (Tertiary ones with predomination of glacier ones). Some of the supreme plants are also referred to the relict elements. A particular interest among them comes in the face of the species of Tertiary age, which are the oldest ones in our country.

**The fauna diversity of Bulgaria is a serious resource for development of tourism, and not only of the ecological tourism, but also of the hunting and fishing tourism.**

Although not well researched at the present stage, some 29,000 animal species have been counted in the Bulgarian fauna, and their relict number is over 56,000 species. The vertebrate animals represent some 2.5% of the Bulgarian fauna and include 736 species.

**Due to its middle and specific location in the West Palearctica of the Balkan Peninsula, Bulgaria possesses a particular interesting fauna. One can say that it is one of the countries in Europe with the greatest biological diversity in this respect [Minev, Yankov, 1994; Kostadinova, 1997]. The reasons for this uniqueness are hidden in the fact that within the scope of its territory come parts of four bio-geographical provinces. For the relevantly small area, onto which it is situated, this is quite a rare phenomenon [Minev, Yankov, 1994].**

It is necessary to point out that Bulgaria has only 1.06% of the territory of Europe, and yet here are located 388 species, or around 74% of the 514 bird species which have been counted for the Continent, as well as some 12 more species, which have not been included in the European list of birds [Tucker, Heath, 1994, cited by Kostadinova]. According to the data provided by the same author, while 5.1% of all birds on the Earth can be met in Europe, only in Bulgaria this percentage is 3.8%, which makes our country extremely for the preservation of birds in Europe and on the planet. One should not omit the fact that Bulgaria is one of the six countries in

Europe, which have the greatest number of species with European environmental protection significance (some 210 out of the 287 species recorded for the Continent). **The analysis made show out that 142 (36%) species of the Bulgarian ornithofauna are species, which have favourable environmentally protected status, and some 21 of them globally endangered species. Through the territory of the country pass two of the Europe's major bird migration routes – on the Black sea coast and on the Struma River – Via Pontica and Via Aristotelis.**

Thanks to its geographical situation and extremely diversified natural conditions, Bulgaria possesses a considerably rich fauna of mammals. Up to now some 97 species of mammal have been counted in our country, including 32 bat species, 42 small mammal species and 23 big mammal species.

Bulgaria, together with Greece, Turkey, Macedonia, Albania, France, Italy and Spain, is one of the countries with the richest amphibian and reptile fauna. Up to now, on the country's territory and territorial waters have been found 52 amphibian and reptile species, of which 48 are constant residents, and two poison snake species – the asp (known also under the popular name the “stone snake”) and the sharp-faced viper are being considered as extinguished from the fauna of the country. Another two species – the maritime turtles and the green turtles have been found incidentally in the Bulgarian Black Sea waters and long time ago.

It is considered that together with the subspecies the number of the taxons of the Bulgarian amphibian and reptile fauna reaches 70.

The fish fauna (the ihtio-fauna) of Bulgaria includes 207 species and subspecies. The fresh water ihtio-complex is presented by 122 species, and in the Black Sea basin some 126 species have been recorded.

Taking into account all the above-described biological diversity, one of the requirements, imposed to Bulgaria by the European Union in the process of its accession under Chapter 22 “Environment”, Sector “Preservation of Nature”, was the preparation up to the end of year 2006 of lists with Protected zones for establishing and sustaining within the country of a network of territories compliant in purpose and structure to the sites of the European environmental network NATURA 2000.

In this regard, in 2002, the Law for biological diversity was adopted in Bulgaria. According to this Law, the network of Protected zones (protected areas) includes:

- Protected zones for preservation of birds;
- Protected zones for preservation of the natural habitats of the wild flora and fauna, the establishment of which is carried out under various procedures.

The average presence of the protected zones (of the Protection areas) for the habitats in the European Union is 12% of the territory of the member countries. Under the Birds directive this percentage is 9.6%.

By a special decision of Bulgarian government (the Council of Ministers) of March 02, 2007, in the State Gazette was published a List of the protected zones for preservation of the wild birds and a similar one for the preservation of the natural habitats of the wild flora and fauna. The first list included 88 protected zones covering 1,255,110.65 ha, including in this figure some 1,254,309.75 ha of land territory and 800.90 ha water areas, which is 11.3% of the country's territory. The second list includes 180 protected zones of an area of 1,484,377.9 ha; including 1,472,069.3 ha land territories and 12,308.6 ha water areas. This is 13.4% of the territorial range of the country. Recently, the Council of Ministers approved some more 27 sites of this kind.

The declaration of the protected zones in regard to the bird ones may start

immediately after the publishing of the list in the State Gazette, while for those concerning the habitats, this can be done after their review and approval by the European Commission on the specially organized for this purpose bio-geographical seminars.

In Bulgaria, the management of the Protected zones will be entitled to the owners and the users within and of the zone through the development for this purpose of Management Plans. The management shall be coordinated controlled by the Ministry of Environment and Waters. The long-term preservation of the valuable habitats and species within the zones under the NATURA 2000 network will take place by the means of encouraging such kind of agricultural, recreational and forest business practices, which preserve or sustain the different types of habitats and the species in good condition. The measures include also the limiting of some activities, which could damage significantly these habitats and species. The investment intentions, plans and programs, which affect NATURA 2000, shall be endorsed or not on the basis of the assessment of their impact on the valuable habitats and species, subject to protection in a certain zone. The activities connected with NATURA 2000 will be financed by EU funds under the Operative Program "Environment". Under the Program financial means will be provided for the development of Management Plans for sites under the NATURA 2000, as well as various activities envisaged for these territories, such as environmental investment projects, information campaigns, training and etc.

The philosophy of preservation in the Protected zones, through the regime of the activities pointed in the Ordinances for the declaration of the zones, does not come in the face of total ban of any kind of construction, but in balanced decisions based on evaluation of the particular site under protection for the zone concerned. In regard to the agricultural lands and the

forest there are no specific bans for usage, but the principle is to preserve the type of the habitat.

Even in the initial stages of the selection of the Protected zones in Bulgaria, some very extreme reactions occurred from a whole range of business organizations, including representatives of the tourism business as well. The reasons for this can be found in the fact that in NATURA 2000 had been included such territories as part of the National Park "Pirin", the National Park "Rila", National Park "Central Balkan", the Pomorie Lake, the Chengene skele bay, the Atanasovo and the Burgas Lakes, the "Ropotamo" complex, the Durankulak and Shabla Lakes, the Strandzha Mountain, the Natural Park "Zlatni piasatsi (Golden Sands)", the Black Sea coast of the Dobrudzha region, the beach strip at the estuary of the Kamchia River, the Shumen Plato, the Rila Monastery, the Kaliakra cape, the Galata area, Batova, The Rupite site, Trigrad-Mursalitsa, Balchik, the Shkorpilovtsi beach, Irakli and other territories which attracts serious investors' interests. A significant part of these territories has been seriously affected by the mass-scale construction of high category hotels at the Black sea coast, in many of mountain resorts and etc. Serious speculations have occurred also due to the possibility all construction activities to be prohibited in these zones in the future, as well as business activities to be diminished to their minimum and many others. It has been disregarded the fact that one of the main requirements for using of the areas the which come in the frames of NATURA 2000, including also all tourism activities regardless of weather they are directed to recreation, business or ecological tourism and etc., is sustainability. This means that the planning and the development of the tourism infrastructure, its functioning and marketing should focus on the environmental, social, cultural and economic criteria for sustainability.

Taking into account the above-mentioned requirements, in some other papers published by the author of the present material [Georgiev, 2005], criteria and indicators for recreational assessment and evaluation of the biological diversity of similar types of territories have been developed. In the assessment and evaluation of the vegetation and animal world four criteria have been introduced: presence, uniqueness, conservation significance and attractiveness. The

significance of each of these criteria is defined by a certain number of indicators. A score evaluation is being applied.

In conclusion, it is worth emphasizing that the establishment of the NATURA 2000 network is positive step forward in the preservation of the biological diversity of Bulgaria. It can be stated out that the development in the future of a scientifically proved national strategy for sustainable tourism will contribute to the efforts for overall tourism development in Bulgaria,

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