



BIOLOGICAL OBSERVATIONS AND SURVEYS

**EXTENSION OF THE NATIONAL PARK "SHARRI" BOUNDARIES,
SIGNIFICANT ACTION FOR PRESERVATION OF NATURAL VALUES**

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SYNOPSIS

Key words:

National Park "Sharri",
biodiversity,
endemism.

Sharri Mountains is a main centre of biodiversity in Kosovo, because of its richness biodiversity and others natural values. A part of Sharri Mountains was declared a National Park in the year 1986 within an area of 39,000 ha. With this declaration, parts of Sharri and Koritnik Mountains, characterized by high biodiversity and natural values too, were left outside the protected area.

Based in previous scientific records of different local and international scientists group of experts conducted research about the state of flora, fauna and vegetation and the field investigation in this area during 2009-2012, resulted in the proposal for extension of the boundaries of the national park Sharri for another 23.469 ha. Considering this scientific proposal provided by experts, in December 2012 the Assembly of Kosovo adopted the Law on the National Park "Sharri" which covers an area of 53.469 ha, that lies on the territory of five municipalities: Kaçanik, Shtërpçë, Suharekë, Prizren and Dragash.

In this paper are presented the results of research of plant and animal species and important plant communities (associations) in scientific and economic terms in the municipality of Dragash, and a part of Prizren territory.

INTRODUCTION

Sharr Mountains lie on the territory of the Republic of Kosovo and of Macedonia. But the most interesting features, rich sites in terms of flora, fauna, landscapes, geomorphologic, hydrological, etc., lie in the part of Kosovo. For high natural and biodiversity values of Sharr Mountains, many authors have published

scientific papers in different fields such: geology (Pantić et al., 1998), geomorphology (Krivokapić, 1969; Leute, 1978; Çavolli, 1981; Menković, 1985), flora and vegetation (Janković, 1963; Krasniqi, 1972; 1987; 1998; Šilić, 1988; Rexhepi 1984; 2000; Stevanović & Janković, 1984; Janković & Stevanović, 1984; Krivoshej et al., 1997; Randjelovic & Amidzic 1997; Lakusic 1988; Mustafa, 1998; Mustafa, and Hoxha. 2001; Mustafa et al., 2008; 2011; Veselaj et al., 2006, 2012 etc.), fauna (Naumov 1984; Grubac, 1998; Meceva et al 1998; Sherifi and Mustafa 2002; Jaksic, 1998; 2003; Stevanovic, 1995) etc.

It is known that the world's most common and effective way to conserve biodiversity is declaring certain natural areas of special flora, fauna and ecosystems as legally protected areas.

International engagements in reference to protected zones date back to the UN Conference on Human Environment held in Stockholm in 1972, aiming at promotion of representative examples of ecosystems as a requirement of their national preservation programs. Later on, the protection of representative ecosystems turned into a basic principle of conservation biology in important political documents on environment like: World Charter on Nature (1982), Rio Declaration (1992), and Johannesburg Declaration (2002). At a global level today there are about 120,000 protected areas falling in six different categories covering a total of 18.8 million square kilometres of land and water areas, or about 12.2% of the globe's surface (UNEP-WCMC, 2009).

Protected areas are the keyword of all national or international strategies for nature and biodiversity conservation. Today, protected areas are the biggest hope to stop the extinction of many endemic, relict plants and animal species and interesting natural features threatened by extinction. According to the World Conservation Union (IUCN), there are six categories of protected areas, while category II belongs to the national park. Most of protected areas are identified during XX century, some of them are established later, but their surface has rapidly increased since 2004.

The network of protected areas in Kosovo has begun to develop in recent decades. This network currently consists of 98 protected sites with an area of 125 586 ha or 10.03% of country territory (Tab. 1)

Some of the protected areas (particularly national parks) in Kosovo, as well as in other countries are still in the situation of so-called "parks in papers" where despite having the legal mandate and objectives of management are still on paper, because of the lack of capacities of management authorities to monitor and enforce conservation purposes and objectives. However, even in paper, national parks should be managed to convert into the real protected areas and gradually, operational measures should be set for the preservation of natural degradation and slow remediation of already degraded resources in the shortest time.

Table 1. List of protected areas in Kosovo.

Type	IUCN category	Number	Area/ha
Nature reserves	I	11	847
Floristic		7	
Fauna		2	
Special		2	
National parks	II	2	116,760
Natural monuments	III	83	6,296
Speleological		4	
Hidrologic		15	
Geomorphologic		6	
Botanic		55	
Memorial		1	
Forest park		1	
Nature museum		1	
Protected landscape	V	2	1,683
Total		98	125,586

Kosovo is delaying to establish the functional protected areas network with high biodiversity values. Putting the high-value areas under legal protection is a national and international commitment, considering the fact that Kosovo is strongly oriented towards quickly becoming a candidate country and latter an EU member. Protected areas should be declared after a careful analysis of the necessary skills and capacities for their conservation. Objectives for conservation of protected areas should be clear and accessible to setting management plans. To ensure proper management we need to know:

- Are there enough human and capital resources to implement management plans of protected area?
- Does the protected area face participation and support from stakeholders and other affected parties?
- Is the protected area supported by a national-level institution that provides necessary facilities and capabilities for an effective management?

In recent years, local communities and our people have started to see protected areas as a way to protect the areas important to them as sacred places or as natural areas managed for environmental and other benefits such: ecological food, tourism, recreation, etc.

The aim of our research was to:

- identification of plants, plant communities and animal species with economic and scientific importance and vulnerable to extinction by human factor especially in the area of the municipality of Dragash region and a part of Prizren region

comparing the data of earlier researches and assessment of the situation on the ground through our research;

- justify the expansion of the boundaries of Sharr National Park and introduction of the Kortnik Mountains within these boundaries.

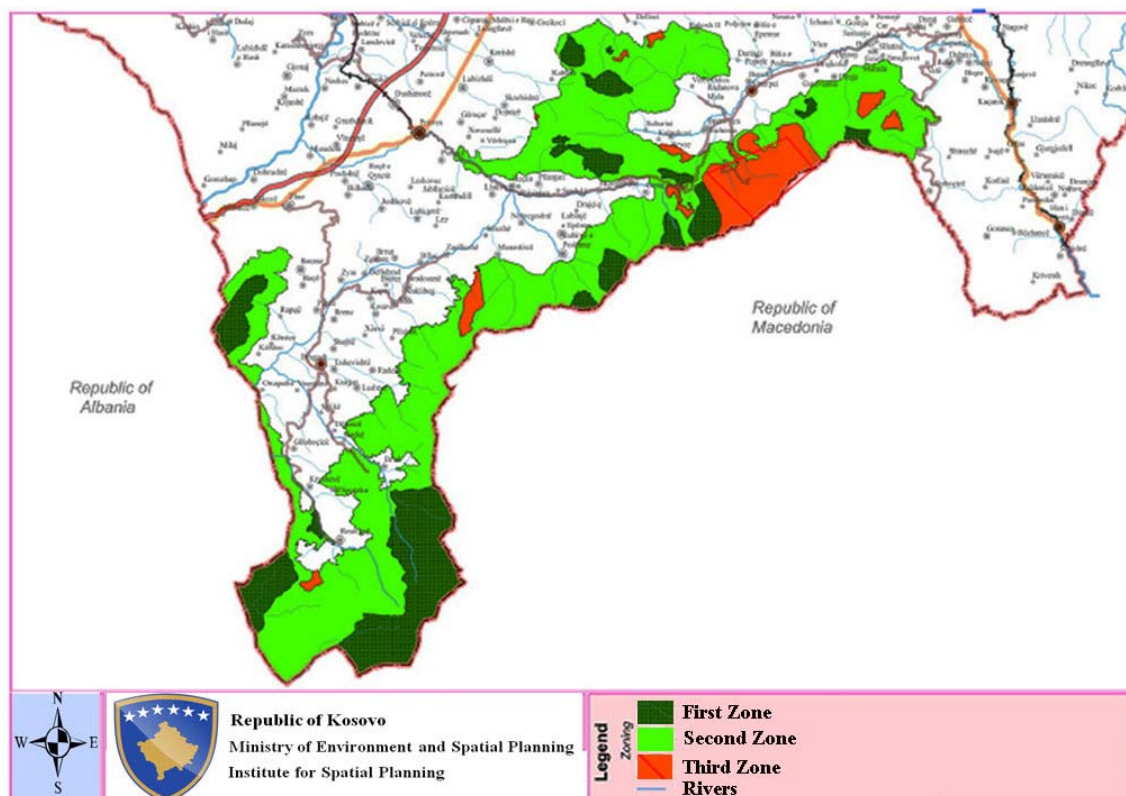


Figure 1. Borders of Sharri National Park (MESP, 2013).

MATERIAL AND METHODS

For the assessment of biodiversity values of the Sharr Mountains within the parts of Dragash municipality and a part of Prizren, is used relevant literature and field research. Fieldwork and surveys were conducted in the period 2009-2012. During the fieldwork were collected and analyzed 64 plant species. These species were analyzed in term of population size and anthropogenic impact in their population. The areal of 28 plant association and influenced of the human factor in these areal were evaluated in field.

There have been identified and analyzed plant associations important in terms of the ecological profile, scientific and economic importance, landscape, ecotouristic and especially vulnerable to extinction by human factor.

RESULTS AND DISCUSSION

Balkan endemic species greatly give a specific character to this region, while in the region of Dragash they are only fairly present, and in some cases establish endemic associations: *Pinetum heldreichii typicum*, *Abietum regis-borisii* (Rexhepi, 1994).

From previous surveys by other authors (Rexhepi, 1994; Krivošej, 1997; Randjelovic & Amidzic, 1997 etc.), our research on plant species in the municipality of Dragash based on Geological Map (Milovanovic & Ciric, 1968; Horvat et al., 1974) and field research, we have made the identification and analysis of the ecological profile of 64 most important species, mostly endemic, with economic importance and those with the risk of extinction by human factor activities.

Some of the investigated species are proven to have very tight areal and came to only few individuals such *Triglochin palustre*, *Crepis macedonica*, *Colchicum macedonicum* (less than 100 individuals) (Mustafa et al., 2011). Some of the species analyzed in this region, confirmed the necessity to be included in the Red List of Kosovo such: *Colchicum macedonicum*, *Crepis macedonica*, *Abies borisii regis*, *Tozzia alpina subsp. carpatica*, *Triglochin palustre*, *Saudi bryoides*, *Juncus L. triglumis subsp. tiglumis*, *Primula halleri*, *Silene pusilla subsp. candavica*, *Senecio scopillii*, *Thalictrum alpinum*, *Dioscorea balcanica*, *Gentiana lutea*.

Some of the studied associations (Abieti-Fagetum moesiacaе, Abietum-Borisii Regis, Alnetum glutinosae, Drypetum spinosae, Gentiano-Dryadetum octopetalae, Juniperetum nanae, Luzulo-Fagetum moesiacaе montanum, Nardetum strictae, Pinetum mughi, Quercetum confertae–cerris scardicum, Quercetum montanum, Quercetum trojanae dukagjini, Rhododendron-Pinetum peucis, Saxifrageto-Potentilletum apenninae) have proven to be in very tight areal and others heavily influenced by the human factor.

Jaksic (2003) found that in the area of our research, lives 15 species of butterflies that according to IUCN's criteria are threatened and therefore included in the European Red List: *Pyrgus andromedae*; *Papiliomachaon linnaeus*; *Euchloe ausonia*; *Satyrium walbum*; *Pseudophilotes baton*; *Pseudophilotes bavius*; *Iolana iolas*; *Aricia anteros*; *Argynnis pandora*; *Brenthis ino*; *Nymphalis antiopa*; *Limenitis populi*; *Apatura iris*; *Erebia gorge*; *Erebia rhodopensis*; According to the same author, vulnerable species according to IUCN's and included in the European Red List are: *Pyrgus sidae*; *Zerynthia polyxena*; *Parnassius apollo*; *Pieris brassicae*; *Lycaena dispar*; *Thecla betulae*; *Satyrium acaciae*; *Cupido minimus*; *Maculinea arion*; *Maculinea alcon*; *Plebeius argyrognomon*; *Euphydryas aurinia*; *Apatura ilia*; *Melanargia larissa*; *Satyryus ferula* and *Hipparchia volgensis*. According to this author, the rare species as per IUCN criteria and included in the European Red List of are: *Spialia phlomidis*; *Vacciniina optilete* and *Polymmatius eroides*.

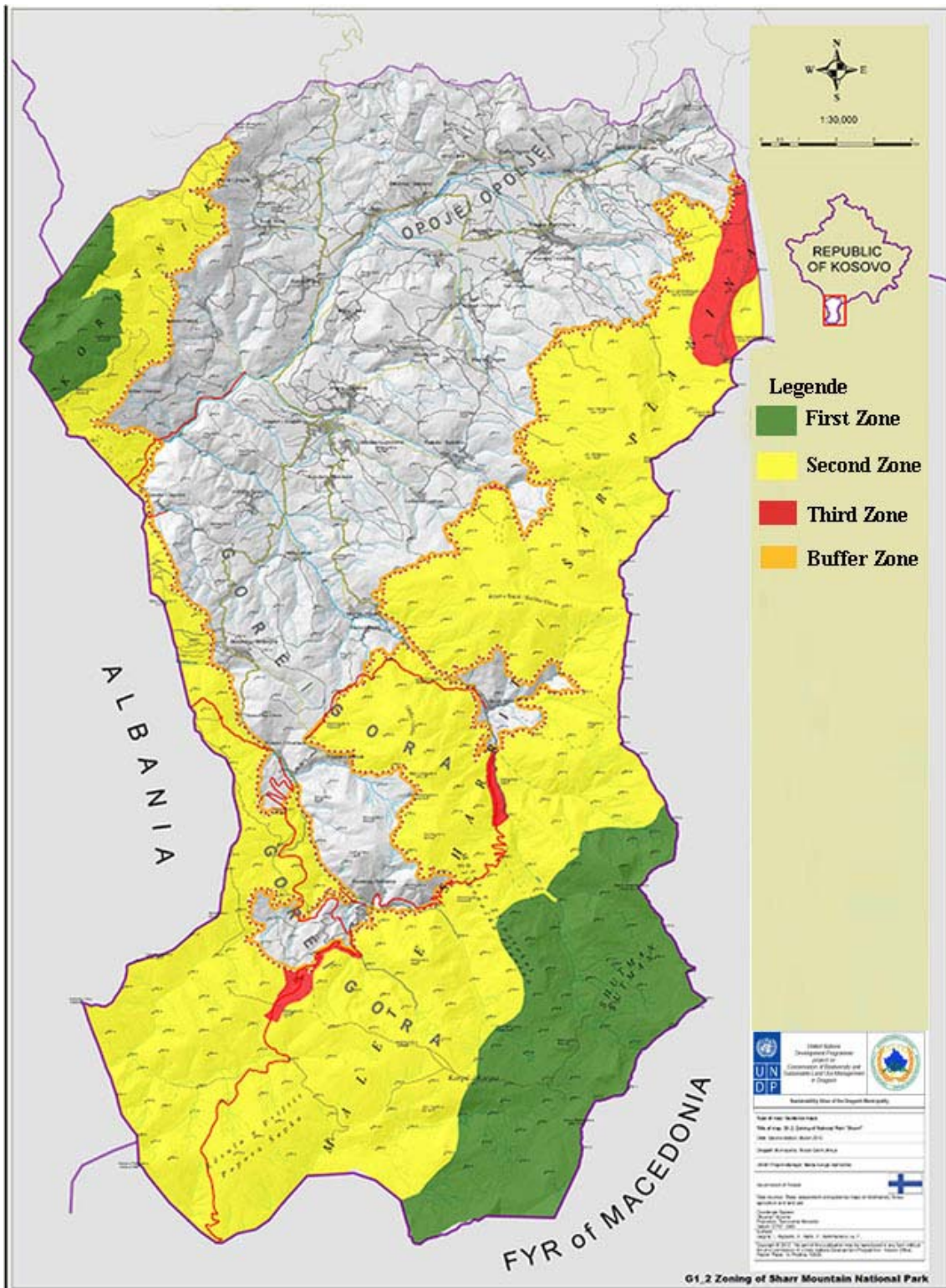


Figure 2. Zonating of Sharr National Park in Dragashi Region (UNDP, 2013).

Most of the above mention species and plant communities are located in the area of Vracë and Gjinibeg and Koritnik. Vracë and Gjinibeg is areal of brown bear (*Ursus arctos*) too, while in Kortnik the area of Morava Popak is areal of lynx (*Lynx lynx*), are therefore declared as nature reserves (strict areas) (Fig. 2).

CONCLUSIONS

Data from the literature, our fieldwork and identification of plants, plant associations and animal species in the region of the Sharri mountain massif and Kortnik (Dragash Municipality and a part of Prizren) have come to the following conclusions:

- Based on the results of the existing literature and field research we have found that investigated part of the municipality of Dragash, and a part of Prizren are very rich and thus important, in scientific terms of biodiversity and vegetation as well as economic terms.

- The research has proven that many plant species, plant associations and animal species with scientific and economic importance are critically endangered by zoo-anthropogenic factor, therefore within Sharri National park territory, the areas of Shutman, Vraca and Gjinibeg and higher parts in Kortnik called Morava and Popak, because of high natural values, endemic and characteristic flora and fauna are declared as reserves (strict nature areas of protection).

- Some of the analyzed species in the region of Dragash are proven to be very threatened and should certainly be included in the Kosovo Red List such: *Colchicum macedonicum*, *Crepis macedonica*, *Abies borisii Regis*, *Tozzia alpina* L. subsp *Carpatica*, *Triglochin palustre*, *Saudi bryoides*, *Juncus* L. *triglumis* subsp *tiglumis*, *Primula halleri*, *candavica* subsp *Silene pusilla*, *Senecio scopilii*, *Thalictrum alpinum*, *Dioscorea balcanica*, *Gentiana lutea*, etc.

- Some of the plant species and associations are proven to have very tight areal (*Abies borisii regis* and association *Abietum borisii regis*), while others are present only with populations of several individuals: *Triglochin palestre*, *Crepis macedonica* dhe *Colchicum macedonicum*. It is therefore concluded that it is necessary to expand the boundaries of the national park Sharri, including Koritniku mountain in the municipality of Dragash and a part of Prizren in the area of about 23,469 ha.

Acknowledging that many of the species and associations, with scientific and economic importance, are critically endangered by zoo-anthropogenic factors, that it is necessary to expand the boundaries of the Sharr National Park and also the introduction and inclusion of the Kortnik mountains within these boundaries in the area of about 23,469 ha. With this extension the Sharri National Park has an area of about 53 469 ha.

Our field research have proven that the area in Vraca and Gjinibeg and higher territory of Kortnik, called Morava Popak, have high endemic floristic values and characteristic fauna. Therefore, they should be declared as nature reserves (strict areas).

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RECEIVED: 30 July, 2014.