

Appendix I:

Excursions in Western Macedonia and Eastern Albania: Habitat assessment

In the frame of the two Balkan Lynx workshops in Macedonia and Albania five field trips have been conducted. Objective of these field trips was to get first hand impressions of the habitat in the potential lynx range.

1. Excursion on April 21st, 2005 – Mavrovo National Park: Mavrovo to Mala Valley

The Mavrovo National Park is the largest national park in Macedonia and is located in the south western part of the Balkans near Macedonia's border with Albania and Kosovo. It covers 730.8 square kilometres and stretches from the Mavrovo Lake in the East to the Albanian border in the West and from the border to the Kosovo in the North to the Debar Lake in the South. In most available maps, the Mavrovo National Park is drawn with its old boundaries dating from 1949 when it covered only 117.5 square kilometres. Already in 1952 the park was enlarged significantly though. The reason for creating the park was "the protection of the exceptional natural beauty and the scientifically and historically important forests around Mavrovo valley". The highest peak in the park is the Korab with about 2,750 meters altitude. The Korab Mountains are bordering to Kosovo in the north and to Albania in the west. They are separated from the Shar Mountains in the northeast and the Bistra Mountains in the southeast by deep-cut river valleys.

The climate in the area of the national park is characterized by cold and snowy winters and mild summers, whereas in the Radika Valley already a Mediterranean influence can be noticed. The precipitation varies from 900 mm to 1,400 mm. We did not get accurate figures on the shares of vegetation cover, but we noticed that quite some of the high plains lost all their forests and were or are still used as summer pastures. Until the 1950s, more than 150,000 sheep were grazing in the area of the Mavrovo National Park. Today, the number decreased to about 15,000. Sheep grazing is still organised in a transhumance system, but recently, the sheep are being transported by trucks. On April, 23rd we noticed a number of trucks bringing sheep to Mavrovo. Approximately half of the surface of the Mavrovo National Park is covered by forests. A lot of forests have been cut centuries ago in order to increase the grazing grounds. It is reported that some tree species like *Pinus mugo* got extinct inside the park due to human impact. As consequence, the vegetation in the Mavrovo National Park is dominated by coppice forest (mainly beech) and different types of pastures.

The alpine zone (above 2,200 metres) is characterized by alpine grassland or bare areas only. The subalpine zone (1,700 – 2,200 metres) is dominated by grasslands and forests consisting mainly of *Picea abies* and *Fagus sylvatica*. The montane zone (1,200 – 1,700 metres) is characterized by mixed beech and fir forest. In lower elevations, different oak species are replacing beech and fir.

The employees of the national park provided us with figures on wildlife. They estimate the number of chamois (*Rupicapra rupicapra*) at 1,200 to 2,000 individuals. Red deer was exterminated in the park due to hunting. The park administration is running a reintroduction programme for red deer. The number of roe deer is estimated at 1,200 individuals. For wild boar, the park employees estimate about 350 – 400 individuals. Three species of large carnivores are present. The number of brown bear is estimated at 80 to 100, the number of wolf at 14 to 16 and the number of lynx at 18 to 20. This would translate into a density of 2.5–2.8 lynx/100 km² and indicate a very healthy lynx population!

The excursion route: We drove by car from Mavrovo through the Radika gorge to the southern border of the park nearby the village Skudrinje and the Mala valley. The responsible wildlife warden of the park reported that he has recently observed a lynx in the Mala valley. Due to extreme bad weather conditions we were not able to explore the area on foot but had to cancel the field excursion. Nevertheless, we received the impression that large areas of the park are very remote and extremely difficult to access. This especially applies for the central part of the park, which is dominated by the Radika gorge with its extremely steep and high cliffs along a distance of about 30 kilometres.



View from the mouth of Mala into Radika River to the Bistra Mountains

2. Excursion on April, 21st – Mavrovo to Galičnik

A second excursion on April, 21st took us from Mavrovo (1,220 m) to Galičnik (1,550 m). Galičnik is a famous village in Macedonia. Some of the national heroes have been born here and still every July, there is a big festivity taking place, although only one woman is living in the village all year. Galičnik is located at the edge of a large highland plateau in the centre of the Bistra Mountains. This plain was and in some parts still is used as summer pasture. The landscape is characterized by the land use and by the limestone underground with the typical karstic phenomena such as sinkholes.



Sinkhole in the highland plateau of Bistra Mountains

Forests – mainly beech coppice – are located only on the slopes bordering the high plain:

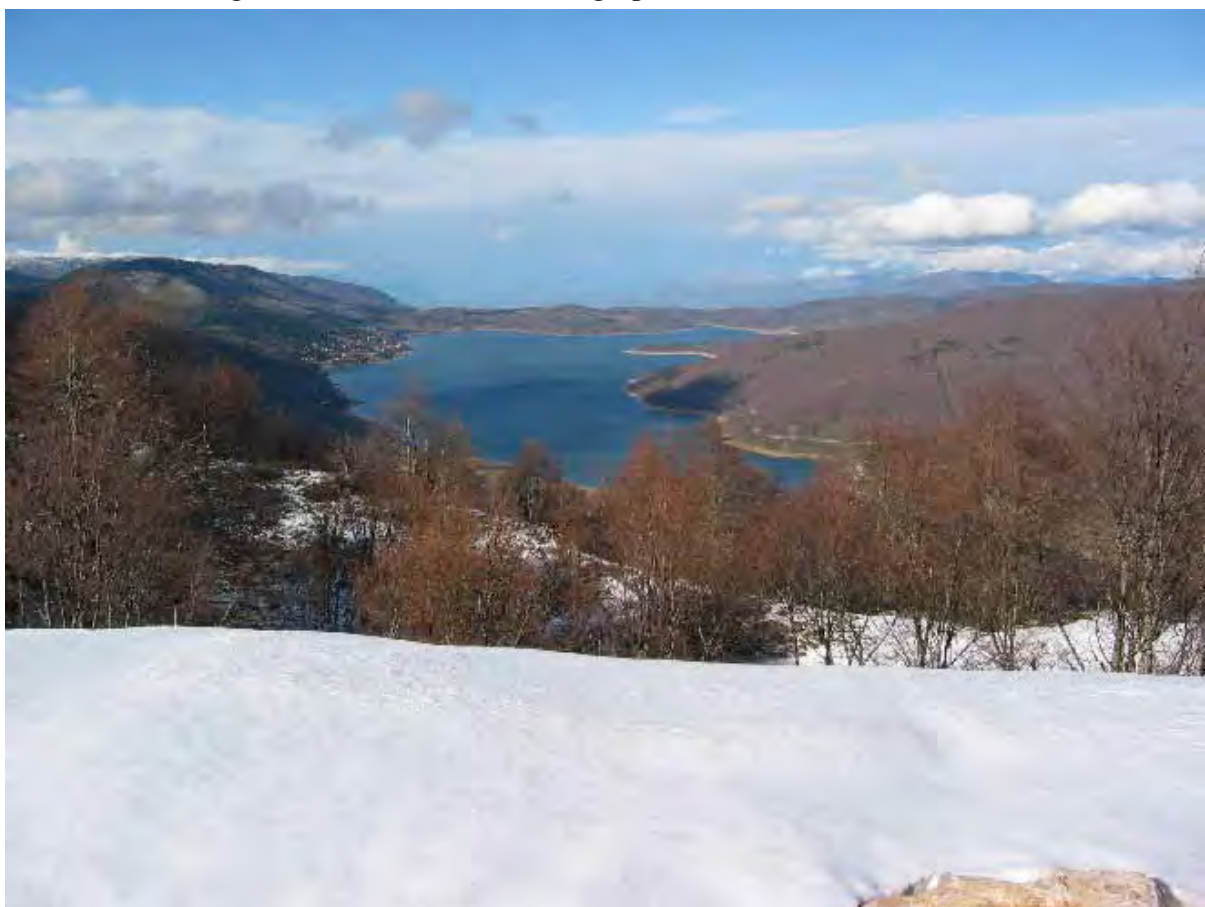


Forest on slopes nearby Galičnik (above) and a view from Galičnik to Debar Lake (below)





View from the edge of the Bistra Mountain high plateau to the Shar Mountains



Mavrovo Lake with surrounding beech forests managed as coppice stands.

3. Excursion on April 23rd, 2005 – Mavrovo to Peshkopi

After the Mavrovo workshop, we drove by car the same route through the Radika gorge to the southern edge of the park as on 21 April and then proceeded to Debar and the border station to Albania. At the border, we met the Albanian colleagues and drove to Peshkopi.



The Radika valley with its steep cliffs is difficult to access and offers some undisturbed areas for wildlife. The Radika gorge is a deep-cut valley dividing Bistra and Korab Mountains

After crossing the border to Albania we drove from the small Albanian border town Maqellarë about 15 kilometres to the town of Peshkopi. Immediately after crossing the border the change of the intensity of land use became obvious. The Albanian side of the Deshat Mountains, which are the southern foothills of the Korab Mountains, is not covered by forests.



The Albanian side of the Deshat Mountains in the background is characterized by heavy exploited and not regenerated forests. Due to the missing vegetation cover, heavy rainfalls are causing serious erosion. Forests can be found only in higher elevations in small patches.

4. Field excursion on April 23rd, 2005 afternoon in the area north of Peshkopi

In the afternoon we made an excursion in the area north of Peshkopi. In the District of Peshkopi, we were guided by the forest engineer Bekim Qosja who is responsible for about 37,000 hectares (33,000 hectares of forests and 4,000 hectares of pastures). This classification is not based on the real land use but on the land register. For example, a patch of about two hectares of the classified forest is covered by one metre high bushes of hazel (*Corylus avellana*). High forests consisting of beech and pine could only be seen in higher elevations. Most of these forests have been heavily exploited and the parts in better shape are very small.

The process of intensification of land use was accelerated by the start of the political ice age between China and Albania in the mid 1970s. The consequence of the breach with China had been complete isolation and struggle for autarky. In consequence, most of the forests were overexploited and farming programmes were started also in the mountains on steep slopes. The most obvious impact is the destruction of the forests. Trees have been cut for firewood in a country without oil or central heating system, and large areas have been cleared, often by fire, to enlarge the agricultural space. The consequence is heavy topsoil erosion with severe damages. The grazing pressure of sheep and goats prevented and still prevents forest regeneration. Much of the human impact of the modern times in Albania is connected with the poverty of the rural people.



Erosion - caused by not adapted land use and overexploitation - is typical for large areas in Albania



Radomirë valley with heavy erosion. The river is joining with the Black Drini. Hazel stands classified as “forest” in the foreground.

5. Excursion on April 24th, 2005 – Peshkopi to Librazhd

The route took us about 100 kilometres southwards, mostly along the Albanian – Macedonian border. Description of the route: Peshkopi – Maqellarë – Shupenzë – Ostreni i Madh – Klenjë – Steblevë – Žabzun – Llangë – Zgozhd – Librazhd.

The area between Peshkopi and Shupenzë is characterized by intensive land use and settlements. Between Shupenzë and Ostreni i Madh, the land use is less intensive, and some forests remain in this area.

Bekim Qosaj – the forest engineer of Peshkopi – showed us areas in the North of Ostreni i Madh, where forest regeneration recently started.



Bekim Qosja is pointing to regenerating forests. In the background the snow covered peaks of Deshat Mountains (border region with Macedonia).

The density of sheep and goats around the villages is high, and the mixed herds are also driven into the remaining forests for foraging. The grazing pressure is believed to decrease as a consequence of the rural exodus, but is still preventing the regeneration process of forests. The key to forest regeneration, which is one of the preconditions for the restoration of lynx habitat and prey populations, is the reduction of the grazing pressure in mountainous areas. But there are no simple solutions for this problem. At present, sheep and goat husbandry is still the basic source of income for a big part of the rural population. But the human impact is decreasing due to a constant rural exodus. Still, additional development and education programmes to reduce particularly the pressure of goats on the forests are needed.



A mixed flock of sheep and goats searching for fodder near the village of Ostreni i Madh



Typical Albanian landscape with overexploited coppice system with start of erosion in the background. These areas were heavily forested until about 30 years ago.

The Albanian-Macedonian border region is an important part of the Green Belt of Europe. Some parts are included in the network of protected areas but others are not. The vision of the Green Belt Europe concept initiated by the German Federal Agency for Nature Conservation and IUCN is to conserve the former Iron Curtain in Europe as an ecological corridor. The transboundary area of Jablanica – Shibenik has to be considered an important part of the Green Belt concept. The excursion route passed by the Shibenik Mountain and we climbed about one hour from the road between Steblevë and Žabzun in the direction of the village Qarrishtë. We wanted to visit this region because we received the report of a lynx killed last summer near Qarrishtë. The specimen can now be seen stuffed in a restaurant (see photo below). The owner said that he found the lynx dead in the forests of Qarrishtë in summer 2004. The slopes of this area are mainly covered with beech forests of different stands. At lower elevations, the forests were used quite intensively, but since approximately ten years, the human pressure decreased. Most of the valley bottoms are still used as summer pastures. During our walk through the beech coppice and small pastures, we detected a lot of excrements of hares (*Lepus europeus*), but found no indication – neither droppings nor resting places – for the presence of wild ungulates. In two snow patches, tracks were detected which could have been from roe deer or a domestic goat. The lack of clear signs of ungulate occurrence are suggesting a very low abundance, a fact that is confirmed by Bekim Qosja, who is also responsible for the wildlife management in the area.



View to Jablanica and Shibenik Mountains. Summer pastures with juniper in the foreground.



Stuffed lynx in the Restaurant Cajjateri nearby Librazhd at the main road to Tirana



View from the Šibenik Mountains to Jablanica – the open places are used as summer pastures and are characterized by *Juniperus*. The slopes are covered with forests of different age mostly dominated by *Fagus sylvatica*.



The beech forests in lower elevations were used heavily in a coppice system. For about ten years, human pressure has decreased significantly and the forests are regenerating.

As soon as we reached lower elevations towards the village of Zgozhd, the higher land use pressure was obvious again.

View from the village of Zgozhd to the West:



General summary:

The picture we received during various field trips is reflecting a variety in land use intensity with regard to population density and the respective situations in Albania and Macedonia. The central part of the common border area is characterised by a very strong contrast: A encouraging well preserved habitat (and wildlife populations in a relatively good shape) in the Mavrovo national park on the Macedonian side, and a strongly degraded habitat with very low wildlife abundance on the Albanian side. The contrast in this part of the border area is obviously stronger than in the north or south. Nevertheless, the transboundary area of Albania and Macedonia is an important section of the Balkan Green Belt and the central zone of the Balkan lynx range. More detailed assessments of this part of the Green Belt with particular focus on the mountains of Jablanica, Shibenik, Stogovo and Shar will give a valuable contribution to a better understanding for the next steps towards a Balkan lynx conservation programme. The Albanian part of the visited region does not look encouraging in regard to a lynx presence at the moment. In some restricted areas, the habitat quality is sufficient, and lynx may survive on hares, but it is not likely that the size and the quality of these patches can support a permanent lynx presence. On the other hand, we can assume that the Macedonian side is one of the core zones of the remaining lynx occurrences. The need for broad conservation measures in the Albanian part is obvious, including changes in the land use, habitat restoration and wildlife recovery programmes. The lynx would be a perfect flagship species to carry this message.

Excursion routes:



0 10 km

Source: Road Map 1:400.000, Ravenstein Verlag, Bad Soden.

Appendix II:

List of documents prepared for the workshops

- Programme (one for Macedonia and Albania each)
- Balkan lynx workshop instructions
- Cat Assessment Data Sheet (CADS) – Form
- 4 special forms A-D (habitat, threats, conservation actions, utilization) that go together with the CADS
- Map of Macedonia and Albania, respectively
- Form Working Group 3: Towards a Balkan lynx alliance
- Form for all Working Groups (3 threats, 3 positive aspects and 3 priority actions)
- Abstract: The Balkan Lynx and the IUCN Red List Assessment (U. Breitenmoser)
- Abstract: Lynx conservation in Macedonia (D. Melovski, G. Ivanov & S. Petkovski)
- Abstract: The Balkan Lynx Conservation Compendium (M. von Arx et al.)
- Draft version of References in the Balkan Lynx Compendium
- Extract of the Balkan population and its range countries, KORA-Bericht Nr. 19
“Status and conservation of the Eurasian lynx (*Lynx lynx*) in Europe in 2001”
- KORA Bericht Nr. 7: “The Balkan Lynx Population – History, Recent Knowledge on its Status and Conservation Needs”
- CD of the Balkan Lynx Compendium