

Workshop on the Conservation of the Balkan Lynx



Mavrovo, Macedonia, 21-23 April 2005

Tirana, Albania, 25-26 April 2005

Report compiled by Urs Breitenmoser, Manuela von Arx and Gabriel Schwaderer

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Summary

The lynx occurrence in the south-western Balkans has been identified as the most threatened autochthonous Eurasian lynx population. Although the critical status has been known for long, no specific conservation actions were taken so far. The population ranges over western Macedonia, eastern Albania and the southern rim of the Kosovo (Serbia and Montenegro). International co-operation is indispensable for a recovery programme, but not easy in this region that has recently faced war-like commotions. Two workshops initiated by Euronatur and the IUCN/SSCCat Specialist Group, in Mavrovo national park (Macedonia) and in Tirana (Albania) in April 2005 have explored the possibilities to establish a cross-border alliance for the conservation of the Balkan lynx.

Available information indicates that the population consists of less than 100 mature individuals. This critical status is worsened by the fact that in significant parts of the range, prey is scarce and the habitat destroyed. The recovery of the Balkan lynx population is important because the lynx in south-eastern Europe was described as a distinct subspecies by Buresch (1941) and Mirić (1971). This classification was controversial, but preliminary genetic analyses now suggest that the Balkan lynx is indeed distinct from other subspecies.

The workshop goals were to re-assess the status of the Balkan lynx, its prey and habitat, and to explore the organisational structures and the institutional responsibilities in regard to a future Balkan lynx alliance. Participants concluded that the lynx would be a perfect flagship species to promote IUCN's Green Belt initiative (www.greenbelteurope.org) in the Balkans, and that the international co-operation and first on-the-ground activities should be discussed in another meeting in fall 2005.

1. Introduction

The isolated occurrence of the Eurasian lynx in the south-western Balkans – hereafter referred to as Balkan lynx – is the most threatened autochthonous lynx population. The conservation of the Balkan lynx is of high priority because it might be a distinct subspecies. Its distribution is restricted to western Macedonia, eastern Albania and the southern rim of Kosovo in Serbia and Montenegro. All information available indicate that the population consists of not more – and may be considerably less – than 100 adult individuals. This is a very critical status, especially when we consider that in significant parts of the distribution range, the prey base is low and the habitat destroyed. The region concerned has recently faced war-like commotions, which have not permitted to become active in regard to a nature conservation programme. Nowadays, the situation has relaxed, allowing building a cross-border partnership at least between Macedonia and Albania.

The region concerned is part of the Green Belt initiative, which can considerably support the protection of the lynx habitat and which in turn can profit from the charismatic lynx as a flagship species to promote nature conservation in the region. The long-term aim of the conservation and recovery programme must be to re-establish a viable lynx population stretching over suitable habitats in the south-western Balkans.

Goal: The immediate goals of the two workshops were to re-assess the status of the Balkan lynx, its prey and habitat, and to explore the organisational structures and the institutional responsibilities in regard to a future Balkan lynx alliance.

Objectives: (1) to review the situation of the lynx, the known prey species, and the habitats, (2) to identify the threats, (3) to assess the requirements and bases for a conservation programme and (4) to explore and outline the next steps towards a comprehensive conservation programme.

2. Process and programme

The approach was to first provide some baseline information, then to split into working groups assessing the situation of the Balkan lynx and the two range countries by means of pre-prepared forms, and finally to compile and compare the findings of the working groups:

First day, morning:

Introduction to the workshop

Macedonia:	L. Melovski
Albania:	F. Bego

- IUCN Red list assessment, ELOIS & Balkan lynx conservation	U. Breitenmoser
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- Baseline information on the Balkan lynx for

Macedonia:	D. Melovski, G. Ivanov, S. Petkovski
Albania:	F. Bego, H. Zoto

- Euronatur's Balkan engagement and the Green Belt Initiative	G. Schwaderer
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- Introduction into the Balkan Lynx Compendium	M. von Arx
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- Warm-up round: The compiled judgement of the participants	All
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First day, afternoon:

Work in three groups: Assessment of the status and situation	All
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Second day, morning:

Presentation of the working group results and conclusions	All
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3. Workshop participants

3.1. Mavrovo workshop (Macedonia)



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3.2. Tirana workshop (Albania)



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 Gabriel Schwaderer Euronatur

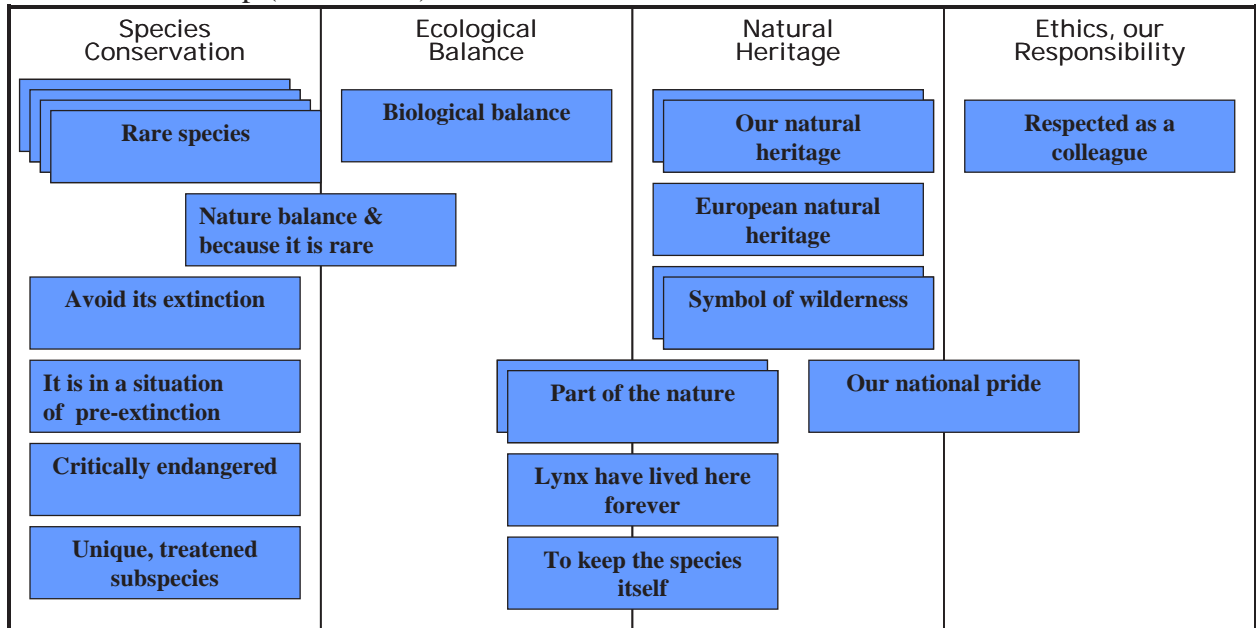
urs.breitenmoser@ivv.unibe.ch
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4. Warm-up rounds

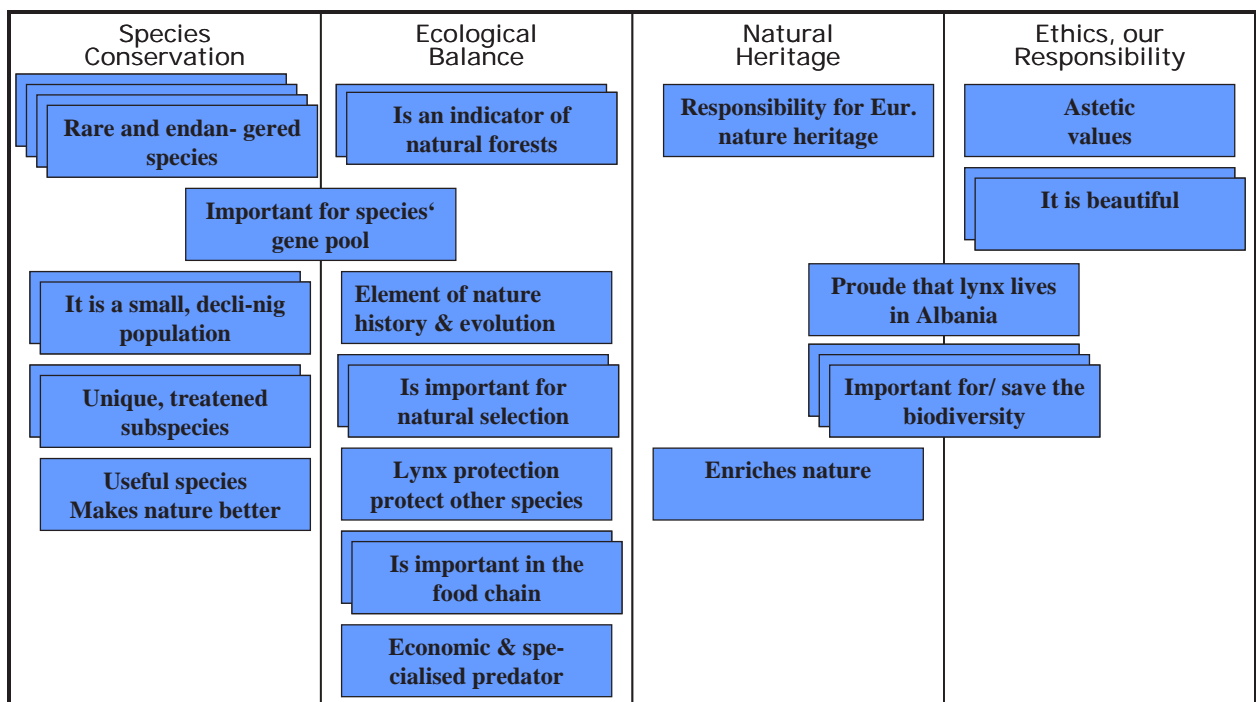
4.1. Why should we conserve the Balkan lynx?

Each of the participants noted 1–2 arguments on a card, which were then grouped into four categories from formal to ecological and ethical arguments:

Mavrovo workshop (Macedonia):



Tirana workshop (Albania):

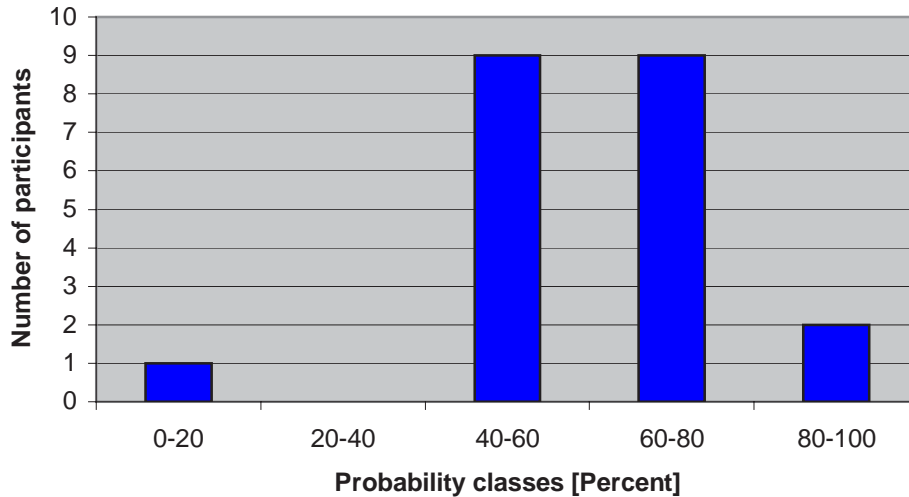


Stacked cards indicate that the argument was noted several times.

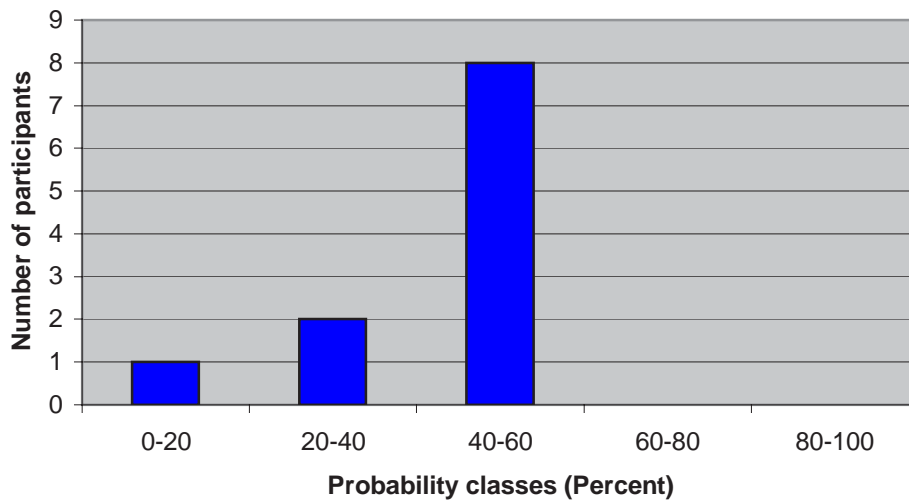
4.2. How do we judge the chance of the Balkan lynx to survive?

Each participant expressed his/her personal judgements by means of a dot put on a relative scale, which was then transferred into a simple histogram:

Mavrovo workshop (Macedonia):



Tirana workshop (Albania):

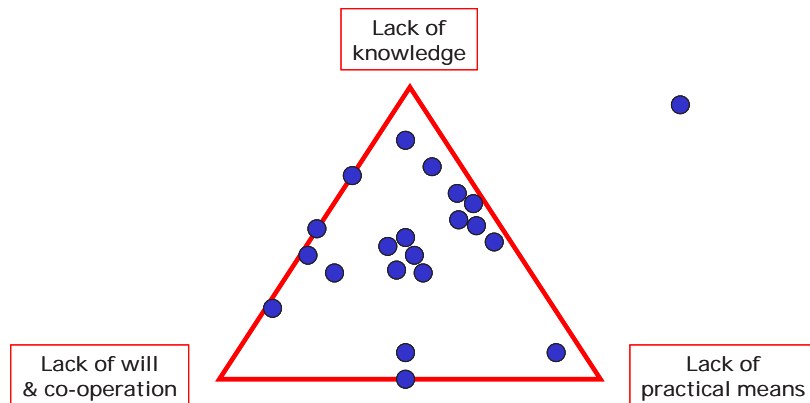


The participants in the Albania workshop are somewhat more pessimistic regarding the survival of the lynx. This seems to correspond to the less conserved habitats on the Albanian side of the distribution range.

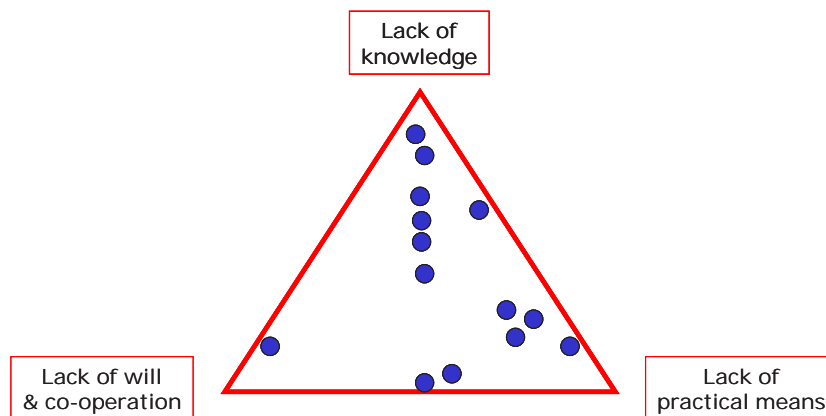
4.3. What are the major obstacles for the conservation of the Balkan lynx?

Each participant was asked to express his/her opinion regarding the obstacles for the conservation of the lynx. A dot was placed in a triangle of which each corner stands for a specific impediment. A dot in the centre indicates that the obstacles are judged to be of equal importance.

Mavrovo workshop (Macedonia):



Tirana workshop (Albania):



The Macedonian group judged the three optional impediments almost equally important, although lack of knowledge was considered slightly more problematic than the other two options. The Albanian workshop participants seem to believe that the lack of will and co-operation is not really a problem, whereas the shortage of practical means and the lack of knowledge is recognised an obstacle to lynx conservation.

5. Working group summary reports

Each working group was asked to provide a very brief text, summing up the experiences made during the work. The reports should rather concentrate on the group dynamics and the lucidity of the forms and the tasks than on the results.

Mavrovo workshop (Macedonia):

Group 1: Andon Bojadzi (convener), Gjorgi Ivanov (reporter), Ilko Lazarevski, Metodija Velevski, Borce Michevski, Stefanka Projchevska, Goran Angelovski.

Group 1 worked on the biology, ecology and habitats of the Balkan lynx and fulfilled the CADS-form in every case where it was possible according to the available data and knowledge of participants. The group was very heterogeneous and lot of different opinions were given and analysed. Lack of information was evident, as little data were available from the field, including the National Parks. This is mostly due to the fact that no special study for the lynx was realized in Macedonia. Most extensive discussion took place in the discussion about threats and recommendations as future activities, but we all agree with the data, which we gave in the form. All unanswered questions will be answered additionally, and the answers will be sent by e-mail.

Group 2: Slavcho Hristovski (convener), Dime Melovski (reporter), Manuela von Arx, Tomo Gjorgjeski, Tomislav Petrovining, Sasko Jordanov.

Group 2 addressed issues concerning lynx research, threats and management. During filling in the questionnaire we generally had the same opinions. In some cases, the group could not simply answer the question, and our opinion was noted instead. In the forms, some issues are missing or not sufficiently addressed, such as poaching, functioning (funding) of protected areas etc. / We are helpless to fight against poaching if courts are not implementing the laws. The provisions of the new law do not specifically define the protection issues in national parks. Means are necessary for engaging and training people able to monitor the situation. / The group had difficulties to fill in the answers about recent projects regarding lynx: field studies, questionnaires, rising awareness. We think that more time is needed to gather all relevant information. Question 8 – recommendations – our opinion is that the time is too short to define all activities that are needed.

Group 3: Ljupco Melovski (convener), Robert Janevski (reporter), Vlado Maletic, Kuzman Ugrinovski, Ivica Pancevski, Aco Jancevski, Naume Razmoski, Cane Petrevski, Marija Calovska, Gabriel Schwaderer.

The participants of this group mainly have similar opinions concerning the most of the subjects. All members of this group took active contribution. There were profiles from different branches, which made the work of the group very productive (scientific institutions - forestry and biology, hunting associations, national parks, MoEPP). The details which were concluded were mainly based on hard facts. Because the main aim of the group was to point out the organizations, which may have significant influence on lynx protection and due to the fact that the members of the group came from such institutions, we find our conclusions very close to the real facts. We found the form (questionnaire) understandable and with clear questions. The most important outcome from the discussions could be the necessity of preliminary exploration of the lynx status on the territory of all western Macedonia including the research of potential bio-corridors between southern part of the lynx range with the central and north-western part. The low cooperation between all interest groups for lynx protection was also pointed out as big problem.

Tirana workshop (Albania):

Group 1: Genti Kromidha (convener), Sokol Kroja, Haki Zoto, Ferit Hysa, Olsi Qazimi, Urs Breitenmoser (reporter).

The group dealt with the species, its present and former distribution, the habitats and the prey bases. Most of the information was provided by Haki Zoto based on the data presented in his book. The information was considered expert knowledge or qualified guesses. Specific biological features caused some discussions, as no data were available. Most important recommendations concerned awareness of specific key institutions (eg governmental organisation), protection law enforcement (for forest!) and the development of an action plan. No recommendation were made for research – practical actions were considered more important – and in regard to captive breeding, in which point the opinion of the group was divergent.

Group 2: Ferdi Bego (convener), Bekim Qosja, Taqo Kitani, Gramoz Ramollari, Denik Ulqini, Manuela von Arx (reporter)

The report we are reporting about has a wonderful and unforgettable experience while filling in the questionnaires prepared carefully by the Cat Specialist working group. The group members were actively involved. They shared their opinion and views in a very professional way. We had a hardware problem but by the help of God and the magic fingers of Manuela we did solve it. We got a lot fun and joy. We were committed to do our job, that's help surviving of our nature flagship species and our country's pride: "Balkan Lynx".

Group 3: Spase Shumka (convener), Liri Dinga, Kujtim Mersin, Gabriel Schwaderer (reporter)

Our group worked on the structures of the administrative frame of nature conservation and on the perspectives for a Balkan lynx conservation alliance. Most of the information was given by Spase Shumka and complemented by the other participants. All participants agreed with the written information. Only about ex situ conservation measures we had a controversial discussion. Captive breeding was seen as an important measure but the zoological garden in Tirana was not considered as an appropriate institution to implement such a programme. The participants felt that the work with the forms has been useful and they confirmed that the forms have been prepared in a professional way.

The findings from the working groups are presented in the specific forms attached to this report.

6. Assessment of the working groups

Each working group had the task to identify the three most important threats to three advantages for the survival of the Balkan lynx, and to list three actions with the highest priorities to be tackled in the time to come. This allows not only seeing the agreement and differences between the three groups, but also between the two countries. The arguments were presented and discussed on the third half-day.

6.1. Three most important threats to the survival of the lynx

Mavrovo workshop (Macedonia)

	Group 1	Group 2	Group 3
1	Illegal hunting	Small population number and inbreeding	Loss of traditional agricultural and livestock breeding practices
2	Lack of food	Poaching	Degradation and fragmentation of habitats
3	Degradation of habitat or disturbance	Habitat fragmentation	Small population

Tirana workshop (Albania)

	Group 1	Group 2	Group 3
1	Forest cutting through the state	Habitat loss and degradation	Habitat degradation
2	Livestock pasturing in the forest (domestic animals in the forest in summer)	Decline of natural prey base	Lack of prey
3	Uncontrolled hunting of lynx and its prey (roe deer)	Poaching	Poaching of lynx and prey

There was a high conformity regarding the threats to the lynx: All groups in both countries mentioned habitat degradation and fragmentation. All groups but one also identified illegal killing – in Albania clearly not only of the lynx, but also its prey – an important threat. In Albania the destruction of the habitat is considered the most acute problem, also for the survival of the lynx' prey. In Macedonia, the situation within the national parks is considered satisfactory, but needs improvement outside the protected areas. Two Albanian and one Macedonian groups named the decline/lack of prey as a threat to the survival of the lynx, in Macedonia again more outside of the current lynx distribution area and hence hampering a potential recovery of the population. Small population size was mentioned twice for Macedonia. Livestock husbandry practices were mentioned ambivalently: Group 3 in Macedonia considered the disappearance of traditional sheep pasturing to be a reduction in prey availability (although there is no data indicating that livestock ever was an important prey base), whereas Group 1 in Albania considered livestock pasturing in the forests to be negative for the habitat, the prey, and the lynx.

6.2. Three advantages of the respective country for the survival of the lynx (why is the survival of the lynx possible?)

Mavrovo workshop (Macedonia)

	Group 1	Group 2	Group 3
1	Proper legislation and its implementation	Existing consensus of relevant institutions for lynx conservation	Lynx chooses inaccessible (for humans) parts of habitats
2	Positive public opinion	Good natural preconditions	Positive treatment due to the positive image
3	Inaccessible habitats	General public opinion	Protected species for a long time - positive legal status

Tirana workshop (Albania)

	Group 1	Group 2	Group 3
1	Part of the habitat is now protected, and more will be protected	Habitat availability	Reduction of human impact due to decrease of population
2	No more clear cutting in new forest plans	Pressure of human disturbance and activity in high mountain areas is declining	Improvement of legal base and management regime
3	Decrease of human population in lynx areas, reduction of pressure	Human attitude towards lynx is generally positive	Improved relations to neighbouring countries

All three Macedonian groups and one from Albania emphasised the favourable public opinion regarding lynx conservation. This may influence the legal status of the species and the protection of its habitat, which is also considered positive. Reduced accessibility and good natural conditions were furthermore identified assets to lynx conservation in Macedonia. All Albanian groups identified the fast reduction of the rural population and, as a consequence, the reduced human impact on the landscape and the habitats to be a chance for the survival of the lynx. These trends are enforced through an increasing awareness of the authorities for forest conservation.

The assessment of the threats to and the advantages for the survival of the lynx indicates that the groups in both countries observe an increasing awareness for nature conservation among the governmental institutions and the public, and that the economic induced rural exodus opens new opportunities. Although mentioned only once – Group 3 in Albania – the improvement of the international relations in the region might be another hope for the cross-border cooperation in nature conservation.

6.3. Three priority actions for the conservation of the Balkan lynx

Mavrovo workshop (Macedonia)

	Group 1	Group 2	Group 3
1	Proclamation of new protected areas	Action plan	Inter-sectoral approach in conservation
2	Research of biology, ecology and distribution of the lynx	Enforcement of the laws (police, court)	Research concerning ecology of the species
3	Education of target groups	Protection of habitats and bio-corridors	Fund raising

Tirana workshop (Albania)

	Group 1	Group 2	Group 3
1	To produce an action plan for the lynx	Habitat protection and restoration	Habitat protection
2	To define a special legal status for the lynx	Legal enforcement	Lynx action plan
3	To increase public awareness (to protect lynx, prey, habitat)	Awareness raising on lynx conservation	Public awareness

Compared to the assessment of threats and advantages, the identification of priority actions was less consistent. Measures proposed by several groups included: habitat protection, legal enforcement, and development of an action plan (all both countries), research on lynx' ecology (mainly Macedonia) and public awareness raising (mainly Albania). Although the groups were instructed to propose as concrete actions as possible, the suggestions remained rather general. This might have been a consequence of the limited time, but reflects also the still limited and sometimes vague knowledge regarding the distribution, ecology and conservation needs of the lynx.

7. Recommendations

7.1. Surveys and assessments

Mavrovo workshop (Macedonia)

Group 1	Group 2	Group 3
Survey of the range, estimation of the population and habitat assessment	Distribution, status, number and trend of the population	Preliminary assessment of lynx status on Shar Planina, Jakupica, Stogovo-Karaorman

Tirana workshop (Albania)

Group 1	Group 2	Group 3
Complete the survey of lynx areas and numbers Drafting an action plan for the protection of lynx Co-operation between different institutions	Delineation of the critical sites for the lynx Estimation of the population size Standardisation of inventory and monitoring methods	Assessment of the lynx distribution in Albania Assessment of the population size in national parks and other potential areas of the lynx distribution

7.2. Research

Mavrovo workshop (Macedonia)

Group 1	Group 2	Group 3
Food source, movements, livestock damage caused by lynx	Ecology (home range, food, reproduction)	Potential areas and habitats for bio-corridors between southern part of the range with central and north-western part; assessment of the home range of lynx in Mavrovo National Park, and establishing the correlation to habitat quality and prey base

Tirana workshop (Albania)

Group 1	Group 2	Group 3
(No recommendations)	Lynx ecology and biology Lynx taxonomy	Clarification of taxonomic status through DNA analysis Study on the prey base

7.3. Education and capacity building

Mavrovo workshop (Macedonia)

Group 1	Group 2	Group 3
Game wardens, hunters, foresters, management bodies of protected areas. Establishing of lynx working group	Public awareness raising, training, education materials, capacity building of protected areas, education of hunters, monitoring	Capacity for lynx management among hunters and national parks employees

Tirana workshop (Albania)

Group 1	Group 2	Group 3
Increase the public awareness (make special status of lynx public in media) Increase awareness of state institutions Improve law implementation Develop alternative economic income for rural population	Training of young students on lynx ecology and monitoring Study visit of young researchers to Germany and Switzerland Awareness campaigns on lynx conservation	Publications on lynx in national and international magazines and the WWW Meetings with people in remote areas Training of national park employees, forestry service employees, local NGO representatives Enforcement of the implementation of the hunting regulations

7.4. In situ conservation actions

Mavrovo workshop (Macedonia)

Group 1	Group 2	Group 3
Conservation and creating of bio-corridors, conservation of prey species	Enforcement of protection in other regions outside of national parks	Establishment of a certain level of protection (IUCN categories) for Jablanica, Jakupica and Shar Planina, and establishment of corridors

Tirana workshop (Albania)

Group 1	Group 2	Group 3
Prevent, in the lynx core zones, all negative activities such as hunting, tree cutting, pasturing livestock in forest Improve forest policemen education and equipment (enforcement of law)	Protected Areas management Restoration of lynx habitats Enhancement of lynx food/prey availability Increase coverage of lynx range with protected areas Legal enforcement Establishment of bio-corridors	Preparation of a lynx conservation plan for specific areas Habitat restoration Identification and protection of bio-corridors

7.5. Ex situ conservation actions

Mavrovo workshop (Macedonia)

Group 1	Group 2	Group 3
Preparation of guidelines and programme for captive breeding	-	Genetic stock in the zoo

Tirana workshop (Albania)

Group 1	Group 2	Group 3
Conservation breeding programme is not recommended because measures in the wild must have priority	Captivity prohibited, except for measures undertaken for reintroduction purposes	Enclosure for lynx captive breeding (common approach of all countries sharing the population)

8. Towards a conservation strategy for the Balkan lynx: Proposal for the next steps

The participants of both workshops agreed that the conservation of the Balkan lynx must be given priority and that it can only be done in the frame of a cross-border co-operation between Macedonia and Albania. Other neighbouring countries – above all Serbia and Montenegro – should be included, but as this will be a complicated process, a recovery plan for the Macedonian-Albanian border zones should be drafted as soon as possible.

All agreed that the Balkan lynx would be a perfect flagship species to promote the Green Belt Initiative (see www.greenbelteurope.org), which was launched by IUCN and the German Federal Agency for Nature Conservation and is managed in the southern Balkan by Euronatur. On one hand, the lynx will profit from the protection of the sites through the Green Belt, on the other hand, the Green Belt idea could be perfectly promoted and communicated through the conservation of the Balkan lynx.

Among the many recommendations made by the working groups during the workshops, the following were in the final discussions recognised the most important or the most urgent:

1. To initiate a meeting between the Macedonian and Albanian authorities in charge and with international participation to launch the cross-border co-operation. Securing funds and on-the-ground activities of state and private institutions will not be possible without a clear commitment by the national authorities.
2. To integrate the conservation of the Balkan lynx into the Green Belt project for the region securing synergetic and mutual benefit for both initiatives.
3. To identify the most important habitats and bio-corridors for the lynx and to improve their protection status.
4. To start training courses for young researchers from Albania and Macedonia in order to improve capacity related to lynx ecology and habitat conservation.



The Green Belt initiative in south-western Europe covers precisely the potential recovery area of the Balkan lynx.

5. To instruct the national park staff and the wildlife management units of the two countries in regard to the monitoring of the lynx. The data compiled for the status reports and again presented at the workshops were mainly (qualified) guesses. Data should be collected and interpreted in a much more consistent and quantitative way to allow a real assessment of the situation of the lynx – and its prey – and to disclose also short-term trends. The lynx monitoring in the Alps can serve as a model to organise a monitoring in the south-western Balkans.

6. To advance the genetic research on the taxonomic status of the Balkan lynx. It is obvious that the Balkan lynx is critically endangered, but as long as the subspecies is not satisfactorily identified, it is not assessed in the IUCN/SSC Red List. Such a status could considerably strengthen the conservation efforts, but the question of the status of the subspecies must be strictly based on scientific criteria.

7. To start a field research project on the Balkan lynx in the region. Such a research project will not only allow to close the considerable gaps in our understanding of the ecology of the Balkan lynx, but will also serve as a calibration scale for the monitoring and – last but not least – will help to train local wildlife managers and scientists.

The participants of the two workshops agreed that the next steps should be (a) a conference of the national authorities, (b) an agreement on common monitoring principles and procedures and (c) training courses for young researchers in order to improve capacity. The first two topics should be addressed in a meeting in autumn 2005. In the course of 2005 training will be organised for young researchers from Macedonia and Albania.

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



Radmirë 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