

STRATEGIC PLANNING FOR THE CONSERVATION OF THE BALKAN LYNX

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ABSTRACT

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The Balkan lynx is the most endangered autochthonous population of the Eurasian lynx *Lynx lynx*. The present known distribution of the Balkan lynx is restricted to the border areas between Macedonia and Albania, spreading north into Montenegro and Kosovo. The Balkan lynx has probably only survived because the border region between former Yugoslavia, Albania, and Greece were areas with limited access and therefore partly protected. But the population is now estimated to be less than 100 individuals and must be considered as Critically Endangered according to IUCN Red List criteria. In 2005, initial workshops in Albania and Macedonia and an international meeting under the auspice of the Council of Europe (Bern Convention) led to the initiation of the Balkan Lynx Recovery Programme. The programme aims to help conserve Balkan lynx by raising awareness, establishing a broad partnership between national authorities, conservation institutions and local people, and building capacity for wildlife conservation in the two countries. The general approach is to combine a species conservation project with landscape conservation in the frame of the European Green Belt Initiative. The Balkan lynx serves as an umbrella species whose conservation will also conserve its habitats and prey species, and as a flagship species for the conservation and sustainable use of biodiversity rich landscapes in the south-western Balkans.

Key word: Balkan lynx, *Lynx lynx martinoi*, species conservation, protected area, strategic planning, capacity building

Introduction – Situation of the Balkan Lynx

Since the first decades of the 20th century, when the Eurasian lynx *Lynx lynx* disappeared from the Dinaric range, an isolated population of lynx has existed in the southwest portion of the Balkan Peninsula (Breitenmoser-Würsten and Breitenmoser 2001). This population was generally regarded as an exclave of the Carpathian lynx *L. l. carpathicus* (e.g. Hemmer 1993), although Bures (1941) and Mirić (1978) had described it as an own subspecies *L. l. balcanicus* and *L. l. martinoi*, respectively. The pop-

ulation received very little attention during the 20th century. Mirić (1981) had summarised the available data for the late 1970s (Fig. 1). He estimated 280 lynx living in the south-west Balkans in 1974, with 120 in Macedonia, 70 in Kosovo, 10 in Montenegro and the rest in Albania (Mirić 1981), but especially from Albania, almost no information was available. The first Europe-wide status reports for lynx (Breitenmoser and Breitenmoser-Würsten 1990, Breitenmoser et al. 2000) concluded that the Balkan lynx population might be the most threatened autochthonous population of the Eurasian lynx in its

whole area, but this verdict was merely based on expert opinion. A review of the status of the lynx in all historic range countries of the Balkan lynx resulted from a workshop held in Plitvice, Croatia, in March 2000 (Breitenmoser-Würsten and Breitenmoser 2001; Fig. 1). The conclusion of the review was that the Balkan lynx population had reached a critical state. The number of lynx was estimated to be no more than 30–35 in Macedonia (Hristovski 2001), 20–25 in Albania (Bego 2001), 12–18 in Kosovo (Grubač 2000) and a few individuals in Montenegro (Paunović et al. 2001). Some sporadic observations were reported from Greece along the border with Macedonia (Panayotopoulou 2001). No Balkan lynx were believed to remain in Bulgaria (Zlatanova et al. 2001; observations in NW Bulgaria were attributed to immigrants from the Carpathians). The most recent European status report for the Eurasian lynx (von Arx et al. 2004) concluded that the Balkan lynx population had less than 100 mature individuals, distributed along the border region between Albania and Macedonia and stretching north into Kosovo (Fig. 1). This estimation, however, was again based on expert opinion, and scientifically robust data on the distribution and abundance of the population are still lacking. As nothing is known about the space use or feeding ecology of the Balkan lynx, it is particularly difficult to guesstimate population size, even if we would know the exact distribution. Nevertheless, according to IUCN Red List criteria (www.redlist.org), the population must be considered Critically Endangered, making conservation

measures most urgent. The importance of conservation actions was underlined by new and preliminary results from genetic research, indicating that the Balkan lynx is indeed different from the Carpathian lynx and should be accepted – and preserved – as a distinct subspecies (Breitenmoser-Würsten and Obexer-Ruff, pers. comm.). But what measures are needed to conserve it, and where and how should they be implemented? The difficulty in compiling reliable information and taking sensible actions was due on one hand the lack of capacity in wildlife research and management in the range countries, but also a consequence of the political instability and the difficult economical situation of the region. It was clear that a conservation programme for the Balkan lynx would face a number of scientific, technical, organisational, and political problems and would have to simultaneously address several challenges, such as raising awareness, building capacity and partnership on regional and international level. In spite of the urgency of conservation actions, we believe that such a situation requires careful strategic planning in order to avoid an expensive and possibly critical mistakes.

Strategic Planning in Species Conservation

Conservation of species, especially large carnivores, involves a variety of disciplines and key players. Large carnivores across Europe nowadays profit from legal protection; but until recently, they were officially regarded as nuisance animals, and much of this mentality still persists in our societies. Predators were, and are, persecuted because they prey on domestic and wild animals – which hu-

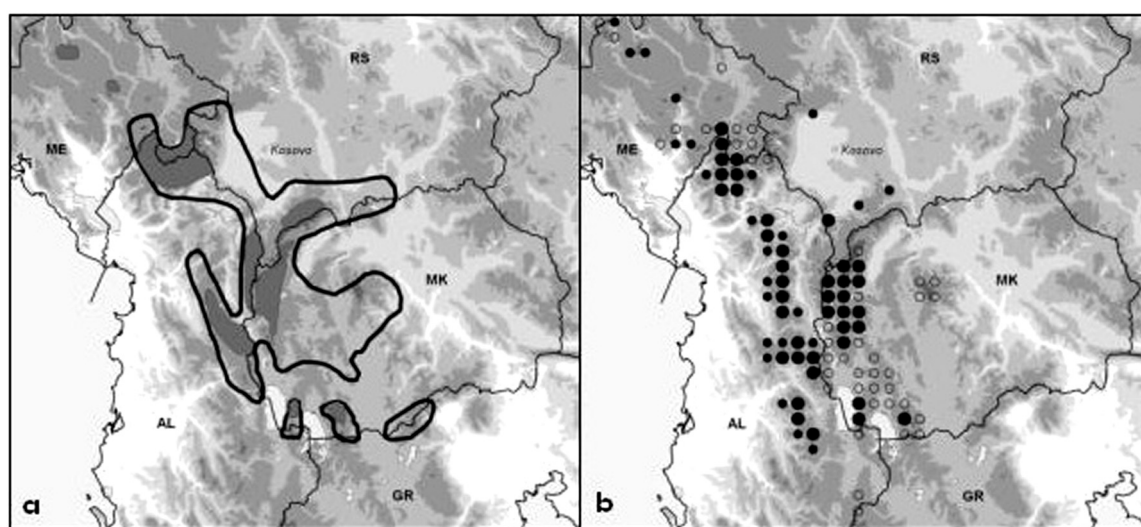


Fig. 1. Distribution of the Balkan lynx population in the 1970s (light grey in a; Mirić 1981) and in the 1990s (dark grey in a; Breitenmoser-Würsten and Breitenmoser 2001) and for 2000 according to the ELOIS project (von Arx et al. 2004). All distribution maps were based on expert opinion and lacked information allowing to estimate population size.

mans consider their property – and because many people believe that they are dangerous for humans. Large carnivores furthermore suffer from indirect threats such as prey depletion or habitat deterioration and fragmentation. On the other hand, top predators such as the Balkan lynx are umbrella species, because their conservation automatically requires consideration of the landscape level and sustainable use of prey species and habitats, e.g. forests. Another feature of large carnivores is their low population density and their need for large areas. In Europe, countries are generally small and international borders typically run through remote and near-natural areas. Hence, the conservation of viable populations requires an international approach with common visions and goals.

The disciplines to be included in the conservation of the Balkan lynx are wildlife ecology and management, landscape conservation and management, anthropology and sociology, law and politics. This requires a broad partnership between (1) scientists and specialist institutions, providing the expert knowledge to be integrated into a conservation programme, (2) governmental agencies (GOs), responsible for the legal and administrative framework and law enforcement, and (3) the private sector including NGOs, interest groups, stakeholders, and, above all, local people concerned. To be effective, a conservation programme does not only need professional knowledge, but also requires political guidance and participation, and acceptance by local people. The interplay of forces within the “triangle of conservation” (Fig. 2) needs to be organised and integrated into the strategic planning for the conservation of the Balkan lynx. A conservation programme includes several steps (Fig. 3) with various products and tools, which may have to be revised and adapted

during the process. These instruments are:

Status Report – At the beginning of each conservation programme, a rigorous review of the situation of the target species must be compiled to provide the baseline information on which subsequent planning can be based. The report should summarise available knowledge and identify gaps. It is a scientific / technical document produced by the respective experts.

Conservation Strategy – The Strategy is the result of a strategic planning process defining the long-term vision and range-wide goals. It needs to respect the biological and ecological facts as presented in the Status Report, but must also consider socio-economical, political, and administrative aspects. The Strategy is developed in a participatory process involving experts, governmental organisations and representatives of interest groups, and should provide (political) guidance and agreed principles for the conservation of the species across its range. The Strategy is the central document to obtain institutional buy-in. The Strategy can be viewed as a “big picture” vision document that sets out general long-term and range-wide goals.

National Action Plans – The Action Plan transforms the ideas and principles of the Strategy into concrete actions to be implemented on the ground. Actions must be targeted (produce a measurable outcome), attributed to responsible actors, and time-bound (clear start dates and completion dates). The development of an Action Plan needs to involve experts, governmental agencies, and representatives of local people and from all interest groups concerned.

The original Status Report and the subsequent monitoring reports define the baseline conditions and document the progress that is being made. They are

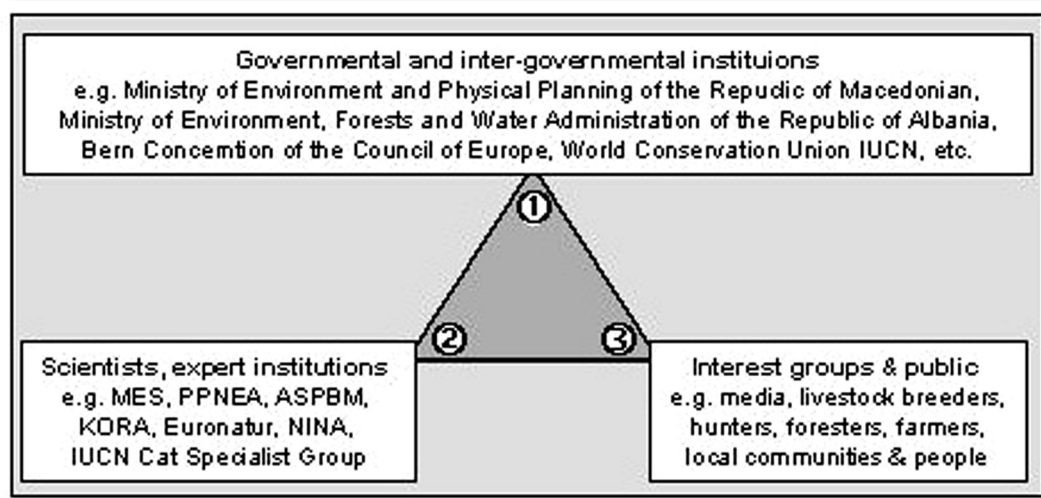


Fig. 2. “Conservation triangle” for the Balkan Lynx Recovery Programme. National authorities and inter-governmental institutions (1), experts (2) and the private sector (3) need to consider their particular role in conservation as well as developing channels to work closely together.

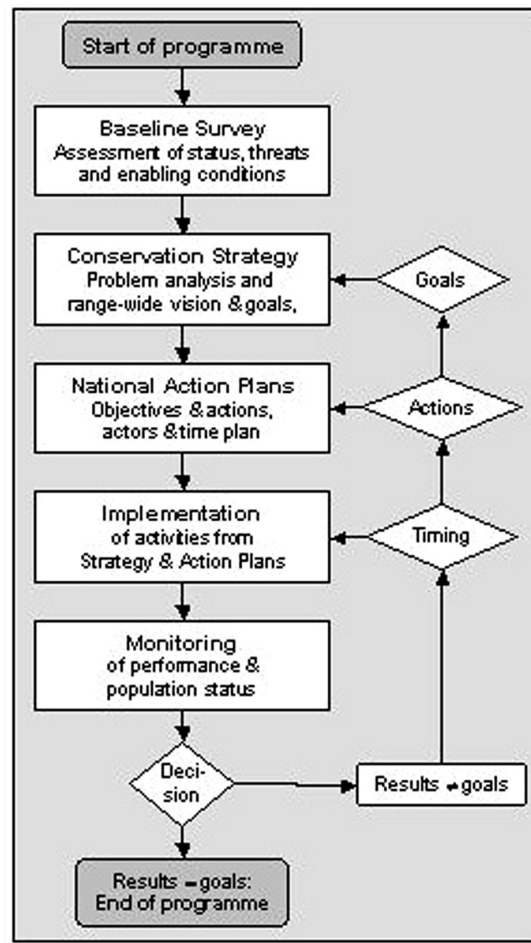


Fig. 3. Flowchart for the Balkan Lynx Recovery Programme. After an initial survey (Baseline Survey), a range wide Conservation Strategy and National Action Plans are developed and implemented. The monitoring programme surveys the progress of the recovery programme and the efficiency of the defined actions.

scientific-technical documents produced by the respective experts. The development of the Conservation Strategy and Action Plans however, involves forming a consensus opinion in a participative process within a group of partners with different ideas and backgrounds, united in the will to guarantee the long-term survival of the Balkan lynx. Strategies and Action Plans may be developed through the same process – often a logical framework approach (e.g. Breitenmoser et al. 2007) – and may have similar forms, they however need to be separated conceptually: First, we need to see the big picture, agree about the visions and the long-term goals, hence to develop the Conservation Strategy, before we can start to plan details, define procedures and identify actors, what are compiled in the Action Plans. Another reason to separate the two processes is practical: On a range-wide level, it is often impossible to involve all stakeholders and local interest groups, e.g. because the group would be too big or would not speak a common language, or because the conditions between the management units for implementing the plan would be too differ-

ent. Therefore, several (national) Action Plans may be developed under the same Conservation Strategy.

All three instruments of the species conservation planning – Status Report, Conservation Strategy and Action Plan – must be renewed and revised at regular and predefined intervals. A monitoring system needs to be established to control whether the conservation activities implemented were successful and the objectives and goals defined are reached (Fig. 3). We need to examine whether objectives and goals are achievable and achieved, actions are purposeful and completed, and whether the timing is correct. If needed, Action Plan and Conservation Strategy must be revised and adapted to new research findings or new developments.

The Balkan Lynx Recovery Programme

To prepare a conservation programme for the Balkan lynx, two meetings of potential project partners took place in April 2005, one in Mavrovo National Park, Macedonia, and one in Tirana, Albania.

At these meetings, which were also attended by representatives of the authorities in charge of nature conservation in the respective countries, we decided to go ahead and launch the Balkan Lynx Recovery Programme through a first common reunion of institutions involved in nature conservation and wildlife management from both countries. The workshop, held in Mavrovo National Park on 15–17 November 2005, reviewed constraints and enabling factors for the conservation of the lynx in the range states and outlined a possible approach (Breitenmoser et al. 2005). Based on this information, KORA and Euronatur drafted a project proposal and submitted it to the Swiss-based MAVA Foundation for the Conservation of Nature for funding. After some negotiation and modification of the proposal, the MAVA board granted a three-year programme running from October 2006 until September 2009. The principle of the Balkan Lynx Recovery Programme is to combine a species conservation project with a landscape conservation approach; hence to use the lynx as both an umbrella and flagship species to promote the conservation of natural and sustainably used landscapes, and in turn to secure the survival of the lynx through the establishment of protected areas and habitat corridors. This is possible because the European Green Belt Initiative coverage in the south-western Balkans almost entirely overlaps with the range of the Balkan lynx (see Schwaderer and Spangenberg, *this volume*). At the same time, NINA received a grant from the Research Council of Norway for a large programme in the western Balkan countries, aiming to build capacity to meet the challenges of cross border cooperation in large carnivore conservation. The project uses the case of conserving species with transboundary populations to investigate the nature of socio-cultural and socio-economical conflicts. Large carnivores are a suitable model, as they are on one hand part of the common natural heritage of all countries, but on the other hand cause conflicts between nature conservation and (traditional) land use and between rural and the urban societies. In Macedonia and Albania, the two projects work synergistically for the conservation of the Balkan lynx. Five goals have been defined for the first phase of the Balkan Lynx Recovery Programme:

Goal 1 – *Survey and monitoring*. The ability to survey distribution, abundance, and population trend is an ultimate prerequisite of any species recovery programme. The low density of all lynx populations requires the adoption of a special approach for monitoring, requiring trained specialists and an extensive network of observers (Breitenmoser et al. 2006). For each country, a team of young scientists is being trained in survey techniques for lynx, which have now started to create monitoring centres and monitoring networks.

Goal 2 – *Baseline information*. To develop a conservation programme, we need data on lynx dis-

tribution and abundance, status of their habitat and prey species, peoples' attitudes and possible conflicts with livestock husbandry. This information is gathered through systematic interviews of local people throughout the potential lynx range and compiled in baseline information reports (see Ivanov et al. and Keçi et al., *both this volume*), which provide an important input for the subsequent workshops.

Goal 3 – *Recovery strategy*. Building on the Baseline Information Reports (Status Report), a range-wide Conservation Strategy defining the long-term goals and needs and National Action Plans for the implementation of the Strategy will be developed in a participatory process (see above).

Goal 4 – *Site protection and resource recovery*. Protected areas like Mavrovo National Park in Macedonia host cores of the extant lynx population. More protected areas are planned in the frame of the Green Belt Initiative (Schwaderer and Spangenberg, *this volume*). Furthermore, habitat corridors between protected sites need to be established, and the sustainable management of both, protected and unprotected landscapes in the potential distribution range of the Balkan lynx must be secured. Lynx can easily survive in a multi-use landscape, but a minimum habitat quality and sufficient prey base must be granted.

Goal 5 – *Conservation partnership*. Implementing the Balkan Lynx Recovery Programme needs a broad partnership between scientists, conservationists, authorities, and users. This partnership needs to be established and formally approved in order to secure the necessary long-term commitment. Furthermore, cross-border cooperation is of outstanding importance. A memorandum of understanding between the environmental ministries of Albania and Macedonia under the auspice of the Council of Europe's Bern Convention will be the base of this international partnership.

Partnerships, long-term commitments, and broad acceptance of the Balkan Lynx Recovery Programme will also depend on the public's awareness and hence on communication. In order to share all available information, we have established the "Balkan Lynx Compendium", a multi-lingual internet platform containing baseline data and all available scientific and popular articles on the Balkan lynx (www.catsg.org). The public is informed through continuous media work. So far, the interest of journalists both from printed and electronic media has been encouraging, demonstrating a considerable public interest in the fate of the Balkan lynx. Preliminary analyses of the baseline survey questionnaires indicate that the lynx is not really a species associated with conflicts (e.g. lynx depredation on livestock is perceived as insignificant; Keçi et al., *this volume*) but lynx nevertheless still suffer from widespread illegal killing (Ivanov et al., *this volume*). We are convinced that through an increased public awareness

and enforcement of existing laws – the Balkan lynx is a strictly protected species in all range countries – will be sufficient for the survival of the existing remnant nuclei. For the range expansion needed to remove the population from the Critically Endangered category, however, all the conservation measures outlined here, including a long-term commitment of all partners, will be needed.

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СТРАТЕШКО ПЛАНИРАЊЕ ЗА ЗАЧУВУВАЊЕ НА БАЛКАНСКИОТ РИС

Урс БРАЈТЕНМОЗЕР¹, Мануела фон АРКС², Фердинанд БЕГО³, Ѓорѓе ИВАНОВ⁴, Ерјола КЕЧИ³, Диме МЕЛОВСКИ⁴, Габриел ШВАДЕРЕР⁶, Александар СТОЈАНОВ⁴, Анете ШПАНГЕНБЕРГ⁶, Александер ТРАЈЧЕ⁵ & Џон Д. С. ЛИНЕЛ⁷

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Резиме

Балканскиот рис претставува критично загрозувана популација на евроазискиот рис којашто има ограничен ареал на распространување во планинските области на Југозападен Балкан, главно вдоль пограничните области помеѓу Македонија и Албанија. Програмата за закрепнување на балканскиот рис има за цел да го обезбеди опстанокот на јадровата популација на рисот и да подготви поволни услови за закрепнување и експанзија на популацијата. Програмата ги комбинира мерките за зачувувањето на видот со пообемните активности за заштита на пределите, кои се спроведуваат во рамките на Иницијативата за европскиот зелен појас. Целите кои треба да се остварат преку програмата во наредните три години се: (1) создавање на капацитети за зачувување и управување со дивиот свет, како и основање на програма за истражување и мониторинг на рисот и неговиот плен, (2) компилација на основни информации која ќе овозможи правилна проценка на статусот на рисот и заканиите кон неговиот опстанок, како и создавање на услови за негово зачувување, (3) развивање на поширока стратегија за зачувување преку партиципативен процес во која ќе се истакнат принципите и долгогодишните цели, како и национални акциони планови за имплементирање на конкретните активности за зачувување, (4) осигурување на опстанокот на рисот преку подобра заштита на неговата област на распространување и одржливо искористување на хабитатите кои ги населува и неговиот плен, и (5) основање на пошироко партнерство помеѓу надлежните државни институции, националните и интернационалните научни експерти, локалното население и општествените чинители.