DISTRIBUTION AND CONSERVATION STATUS OF THE BALKAN LYNX (Lynx lynx balcanicus Bureš, 1941)

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Population size and distribution of target species are among the most important features in conservation biology. By knowing these parameters, an effective management for conservation can be applied in the range countries of its distribution. This is particularly relevant for the smallest and long-term isolated autochthonous populations of the Eurasian lynx in Europe. In 1941, zoologist Ivan Bureš was the first to acknowledge the subspecies status of the Balkan lynx - Lynx lynx balcanicus Bureš (1941). However, this subspecies has never been recognized by the wider scientific public, even though morphometric and genetic analysis support the subspecies status. The topic of the critical status of the Balkan lynx has become even more alarming with the recent dramatic decline in population size and the probability of extinction in the near future.

The main objectives of this paper are to present the distribution range, population size and conservation status of the Balkan lynx. We have used three data sets in order to achieve the above mentioned goals: literature data, questionnaires from a baseline survey performed in the study area (western Macedonia and eastern Albania) and camera-trapping results. The conservation status of the Balkan lynx was assessed using the Species Information Service of the IUCN. The distribution range was calculated taking into account the IUCN standards, thus focusing on the Area of Occupancy (AOO) and Extent of Occurrence (EOO). The population size was calculated using the Area of Occupancy and the mean density of the Balkan lynx inside the Mavrovo NP extrapolated from the data acquired during the systematic camera-trapping session in 2010. The results show a decline in population size in comparison with the results of the baseline survey. The pessimistic scenario for the population size of the Balkan lynx is pointing to only 20 to 44 mature individuals, while the most optimistic one, to 220 individuals. These individuals are distributed mainly in the western part of Macedonia and eastern Albania. No firm evidence could be obtained for the presence of the Balkan lynx in the north of the study area (Kosovo and Montenegro). The Area of Occupancy for the Balkan lynx is probably between 4,000 – 20,000 km². According to the IUCN Red List criteria, the conservation status of this taxon is Critically Endangered (CR (C2a(i,ii))D). We suggest taking urgent measures in order to save the Balkan lynx from extinction.