

Lynx in the Dinaric Mountains of Bosnia and Herzegovina and western Montenegro

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Abstract

Over the years, distribution of Eurasian lynx (*Lynx lynx* L. 1758) has been shown differently, which is understandable due to the mobility of the species, but also because of the methodology in gathering evidence of presence. According to the available literature data for the territory of Bosnia and Herzegovina (B&H), the lynx covered an area of 3500 to 11800 km² from 1980 to 2018. There is very little data on the lynx in Montenegro and they are mainly related to the eastern and southeastern part of the country (border areas with Kosovo and Albania). In the western part of the Montenegro (border area with B&H) a possible presence is mentioned, but without evidence. The new spatial distribution of lynx in B&H obtained for the period 2015-2019 by systematically conducting questionnaire surveys of hunting ground managers from 2017-2018 (n = 94) and with fieldwork research from November 2017 to January 2020. The results of this work show that the Area of Occupancy (AOO) is 416 km² and the Extent of Occurrence (EOO) is 19.112 km² (by GeoCat program). Data on mortality of individuals (n = 54) were collected from 1980 to 2019. Most individuals were registered as killed in illegal hunting (43%), followed by legal hunting (41%), traffic (13%) and disease (4%). By sex, most were dead males (n = 32 or 59%), followed by females (n = 18 or 33%), and the unknown sex was for four individuals (8%). During the research, there were indications for another 14 more cases of poaching, but due to lack of adequate evidence, these data were not taken into account. Basic morphological data not regularly recorded in casualties. The weight of the individuals varied from 11-26.8 kg.

In the period from 2018-2020, a special research was done in the area of the Sutjeska National Park (southeast of B&H) and western Montenegro (mountains Maglić and Volujak), in order to find signs of the constant presence of lynx. This area is of special interest because two subpopulations of the Eurasian lynx (Balkan lynx from the south and Carpathian lynx from the northwest) could merge in this area. The results so far have shown that the lynx is constantly present in the NPS, and in 2019, footprints were also found in Montenegro (the slopes of Mount Maglić). In 2020, lynx footprints were found right on the border of B&H and Montenegro. In the continuation of the research, winter monitoring of individuals and the collection of genetic materials will be carried out to determine the subpopulation affiliation of individuals.

Keywords: Bosnia and Herzegovina, distribution, Eurasian lynx, mortality, footprint, western Montenegro