



Is recent reintroduced lynx larger than the extinct, autochthonous one?

Tomislav Gomerčić^{1*}, Goran Gužvica², Martina Đuras Gomerčić³, Alojzije Frković⁴, Dubravka Pavlović⁵, Josip Kusak¹, Đuro Huber¹, Magda Sindičić¹

¹Department of Biology, Faculty of Veterinary Medicine, University of Zagreb,
Heinzelova 55, 10 000 Zagreb, Croatia

²Oikon d.o.o., Institute for Applied Ecology, Vlade Prekrata 20, 10000 ZAGREB, Croatia

³Department of Anatomy, Histology and Embriology, Faculty of Veterinary Medicine,
University of Zagreb, Heinzelova 55, 10000 Zagreb, Croatia

⁴Kvarnerska 43, 51000 Rijeka, Croatia

⁵Srebrnjak 146, 10000 Zagreb, Croatia

ABSTRACT

The last specimens of autochthonous lynx in Croatia were exterminated in the area of Gorski kotar around the year 1900. After that, during the 20th century lynx was not present in Croatia for over 70 years. However, lynx dispersed to Croatia after three females and three males were reintroduced to Slovenia from Slovakia in 1973. The size of nowadays population in Croatia is estimated between 40 and 60 animals. Some areas of Balkan Peninsula are still inhabited by small autochthonous lynx population. The goal of this paper was to determine if there are differences in craniometrics of the autochthonous lynx that was present in this area and the reintroduced one. A total of 58 lynx skulls originating from the reintroduced population were examined. All of the animals died in Croatia in the period from 1980 to 2004. There were 35 females, 16 males and 8 animals for whom the sex was not determined. Age of all 58 animals was determined by enumeration of root cementum annuli. A total of 85 craniometrical measures were determined on each skull, with 0.1 mm precision. Craniometrical measures from 48 adult animals (older than 3 years) were statistically analyzed. The results were compared to data found in the literature, containing 6 measures of 3 females and 1 male skull of unknown age, belonging to the autochthonous population. Based on those measures existence of subspecies *Lynx lynx martinoi*, smaller than the *Lynx lynx* species, was stated in the literature. There was no statistically significant difference for any of 6 measures of female animals from the autochthonous and the reintroduced population. All 6 measures of the only one autochthonous male were within interval of two standard deviations of the reintroduced population (out of those 4 measures are within interval of one standard deviation). It has been concluded that there was no difference in the skull size of the reintroduced and autochthonous lynx that used to live in this area and that there is no base for the existence of *Lynx lynx martinoi* subspecies.

Key words: *Lynx lynx*, craniometry, autochthonous population, reintroduced population

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