

The Tatra chamois *Rupicapra rupicapra tatrica* Blahout, 1971 – environmental and population changes, from the Pleistocene until the present time

Grzegorz Jamroz

Department of Zoology and Wildlife Management, Faculty of Forestry, Agricultural University of Cracow
29 Listopada 46, 31-425 Kraków, Poland, e-mail: rljamroz@cyf-kr.edu.pl

Abstract

The Tatra chamois is one of ten taxa comprising the genus *Rupicapra*. Using palaeontological and palaeobotanical data, plus studies of the palaeoclimate and the genetic differences between contemporary populations of chamois, an attempt has been made to reconstruct the history of the chamois' occurrence in addition to tracking the changes in their habitats in Central Europe, in the Carpathians and in the Tatra Mts. The recurring periods of expansion and shrinkage of the areas inhabited by chamois in the Pleistocene glacial and interglacial periods, affected the phylogenesis of the genus *Rupicapra*. During the Riss-Würm interglacial period, the south-western populations (*R. pyrenaica*) and north-eastern populations were separated, and the differentiation into subspecies depended principally on the isolation of individual populations, as related to the distances between their locations. The Tatra chamois has been isolated from the Alpine subspecies *R. r. rupicapra* for at least 15 000 years, and from the south-Carpathian subspecies *R. r. carpatica* – for at least 10 000 years. It is only in the last two or three hundred years that this small 'island' population has been threatened by humans, through extermination and reduction in available habitats as a result of large-scale pasturing by stock animals. As a result, several significant depressions in population numbers occurred: in the mid-19th century, during both World Wars and in the last decade of the 20th century. These fluctuations could lead to a reduction in the genetic differentiation of the population.

Key words

Rupicapra rupicapra tatrica, chamois taxa, distribution, habitat changes, palaeontology, genetic differences, Pleistocene epoch, historical data.