

Abstract

This bachelor thesis deals with the landscape connectivity and the progressing phenomenon of fragmentation, which prevents animals from moving in the landscape. The issue of connectivity of the landscape is a current theme of nature protection, given the dynamic development of new roads and highways. The aim of this work is to identify the core areas of large carnivores in the model area of the Romanian part of the Western Carpathians and their interconnection through migration corridors. Based on the findings of the brown bear, wolf and lynx and environmental factors, the suitability of the environment for the occurrence of these carnivores was evaluated using the *Maxent* habitat model. Using the *Linkage mapper* tool, potential migration corridors between core occurrence areas have been identified based on the lowest cost paths. The results confirm that bear, wolf and lynx prefer areas with little anthropogenic alteration. For this reason, their occurrence and maintenance of genetic variability depends on landscape connectivity.

Key words: landscape permeability – landscape fragmentation – large carnivores - Carpathians