

Large carnivores are the most important bio-indicators. Their current distribution is connected to large complexes of mountain forests with low-intensity anthropogenic interference. In the Czech Republic, the Moravian Carpathians are presently home to large carnivores such *Lynx lynx*, *Canis lupus* and *Ursus arctos*. This region is also significant in that it connects regions of current large carnivore populations with regions suitable for potential population expansion. Geographical analysis of the distribution of large carnivores in the Moravian Carpathians revealed a positive correlation between carnivores and the mountain forest near the border of Slovakia. Studies for predilection for land cover and geographical relief as well as the influence of human activity were carried out. It was found that *Lynx lynx*, *Canis lupus* and *Ursus arctos* preferred a region with a low human population density and minimal roads. Future spread depends on the conservation of landscape permeability between areas. This work concentrates mainly on the problem of landscape fragmentation, and how spatial and line barriers can cause the loss of biodiversity. A return of large carnivores to our forests will only be possible if road corridors will be designed with respect to the carnivores' habitat requirements, and also through changing attitudes of the local human population, which continues to view these large carnivores near their homes as a threat.