

## **Abstract**

There are number of future projections of species' geographic ranges developed under conditions of ongoing climate change. However, only a few studies have assessed what are the characteristics of species explaining interspecific variability in the projected range shifts. Examination of such relationships is important for development of effective conservation strategies mitigating the effects of climatic changes. For this purpose, I calculated the predicted shifts of European ranges in Czech birds based on maps in A Climatic Atlas of European Breeding Birds and explored relationships between these predicted shifts and several ecological traits. We found significant effects of the type of European distribution and habitat requirements. Concerning the type of European distribution, the largest shift is predicted in the central species and the northern species compared to widespread and southern species. According to the habitat type, the largest shift showed forest birds in contrast to the urban species which will shift slightly. The former pattern is probably attributable to spatial constrains different among these specific groups (central species are less limited compared to widespread species). The latter pattern could be explained by higher sensitivity of forest species to climatic changes compared to urban birds as species in urban habitats are more limited by other factors than climate. Finally, we have found that species with high level of legal protection will shift more than other species indicating future challenges for bird conservation in the Czech Republic.

**Keywords:** birds, climate changes, range shift, habitat type, Czech Republic, landscape changes