



Conference Abstract

Distribution changes of *Carabus* species in Slovenia: historical data analysis

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Abstract

In the past few decades, there has been a sharp decline in specialised and rare species of ground beetles (*Carabus*) throughout Europe. Our aim was to determine the distribution trends of chosen species and their conservation status in Slovenia. Based on historical and recent data over the period from 1850 to 2018, distribution maps for 25 species of genus *Carabus* have been made. The reduction in distribution area size was used to evaluate the decline of each species in Slovenia and for assigning them to different categories of threat status. Our results show that a significant number of species from genus *Carabus* are in decline. Open habitat species of ground beetles (*C. cancellatus*), ground beetles that are dependent on mature, unmanaged forests (*C. glabratus*, *C. croaticus*) and species, very sensitive to climate change (*C. irregularis*) were found to be the most endangered. Currently, only 3 species are on the Red list of threatened species in Slovenia (*C. auronitens*, *C. gigas* and *C. variolosus nodulosus*), and based on our results, at least 10 species of ground beetles should be added to the existing list. Two species of ground beetles, *C. kollari* and *C. montivagus*, have already disappeared from Slovenia in the last few decades, therefore intensive ecological studies of the remaining species and immediate effective conservation strategies are essential.

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