CONSOLIDATED DATA ON DISTRIBUTION OF *AROMIA MOSCHATA* IN UKRAINE (COLEOPTERA: CERAMBYCIDAE)

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Aromia moschata (Linnaeus, 1758) or the musk beetle is the common and widely distributed palearctic species. Its range occupies temperate zone of Northern Eurasia from Atlantic to the Pacific Ocean. *Aromia moschata* is associated with *Salix spp.* in the wood of which the larvae undergo develop. Adult beetles usually visit flowers of various plant species.

It is unique situation that *A. moschata*, despite its ordinariness and wide distribution (Zamoroka, 2022), is included to the Red Data Book of Ukraine (Наказ…, 2021) and being under the protection. The current discussion (Zamoroka et al., 2017; Заморока, 2022) about the requirement of its further protection needs thorough argumentation. These include, in particular, the consolidation of all available information about *A. moschata* distribution, population size, habitat suitability and predicting of future changes.

In the current study, I presented consolidated data on distribution of *A. moschata* in Ukraine, obtained from the following sources: 1) own field observations; 2) Data Center for Biodiversity of Ukraine (http://dc.smnh.org/); 3) Ukrainian Biodiversity Information Network (https://ukrbin.com/); 4) Global Biodiversity Information Facility (https://www.gbif.org/); 5) iNaturalist (https://www.inaturalist.org/); 6) published data. In total, 547 records of *A. moschata* were included into analysis. DIVA-GIS v. 7.5.0.0, a geographic information system software, was utilized for *A. moschata* range mapping, ecological niche modeling, and evaluating environmental suitability. Bioclimatic data from Worldclim v. 1.3, with a resolution of 2.5 minutes, were employed, providing information on climate norm (1950-2000).

The results showed the wide distribution of *A. moschata* in Ukraine (Fig. 1), occupying mainly forest and steppe and forest biomes. Contrary this, *A. moschata* is relatively rare within the steppe biome of Southern Ukraine and Carpathian Mountains in Western Ukraine. Climatic conditions and vegetation in both regions are mainly unsuitable for *A. moschata*. In particular, Pontic steppes are too dry for the growth of willow forests – natural habitat for *A. moschata*. Similarly, Carpathian highlands are too cold for the most willow species. Thus, the species spread here very unevenly and locally.

The model (Fig. 1) shows that the most territory of Ukraine is suitable for *A. moschata* especially in its northern and central parts. The species are common within natural and secondary willow forests along all types of freshwater bodies, including rivers, lakes, swamps, artificial pools and reservoirs. Surprisingly, *A. moschata* is also common in the large cities, where dozens willow species are used for landscaping. In this case, *A. moschata* can be considered as a pest of urban landscaping.

To date, estimating the population size of *A. moschata* is still a difficult task. According to my observations, *A. moschata* occurs in the Carpathia with a frequency of 10 individuals per 1 kilometer of the river path. Such a value cannot be considered high, but it cannot be claimed that the species is rare. Further studies will shed more light on the population status of *A. moschata* as a whole and its regional variation.

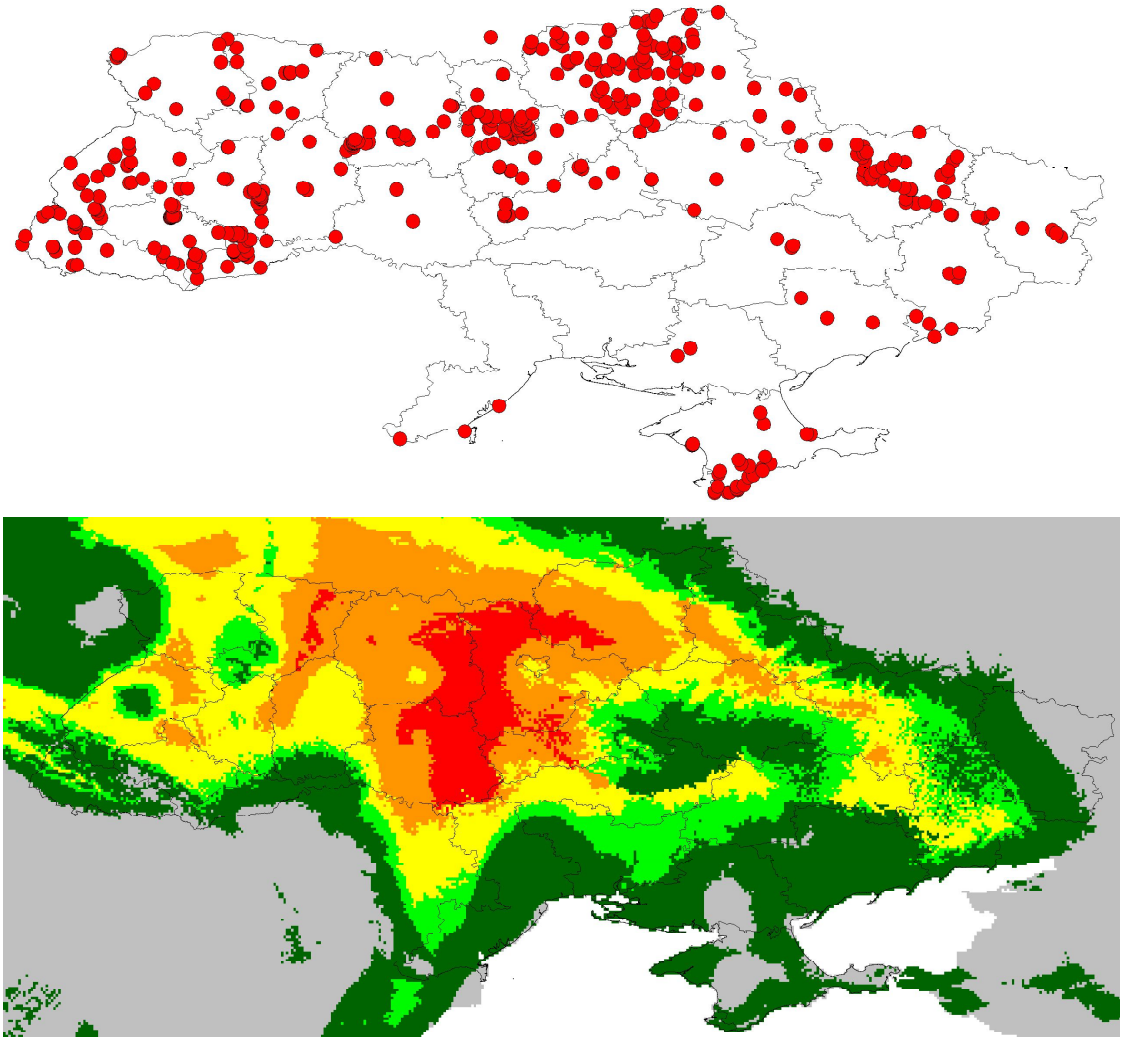

Figure 1. Distribution and the niche modelling of *A. moschata* in Ukraine

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