

## ABSTRACT

The Ortolan Bunting (*Emberiza hortulana*) is a farmland bird species, whose population size has declined very sharply in recent decades, especially in Western and Central European countries. The aim of our study in 2015 was to record where the last populations of this critically endangered species in the Czech Republic are located and also what habitat the species associated with. We examined nine areas (925 km<sup>2</sup> in total). Two main areas of occurrence (surface mines in northern Bohemia and farmland landscape of Silesia) and two small isolated populations in central Bohemia were registered for this species. In contrast, observations in some traditional areas of its occurrence (České středohoří in northern Bohemia, Hovorany-Čejkovice region in southern Moravia and Javoricko region in Silesia) were negative. Altogether, we counted 75–79 singing males. Our estimation of the size of the Czech population in 2015 is 75–100 singing males, which indicates further population decline compared to the last mapping in 2001–2003. Furthermore, habitat associations were investigated at two spatial scales and we made habitat comparison between farmland and post-mining landscape. Our research highlights a high degree of flexibility in habitat selection of Ortolan Bunting and also positive association with high heterogeneity of the area, the cover of bare ground and the low coverage of urban habitats. In farmland the species, for example, was in areas with higher cover of shrub and woody vegetation, poppy fields and set-asides. However, in post-mining landscape it avoided shrub and woody vegetation and selected habitats with cover of herb vegetation, greater slope steepness and terrain ruggedness.

Our unique findings can contribute to applied conservation measures for Ortolan Bunting in the Czech Republic. They should be directed to the core areas of its current distribution and should focus on enhancing farmland habitat heterogeneity and regulating the rate of succession, especially in post-mining landscape.