Habitat selection of Eurasian woodcock *Scolopax rusticola* during the spring migration period in Hungary

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To establish a decent regulation of the hunting of woodcock in Hungary, a monitoring programme started in 2009 at a national scale. More than 900 participating observers collect data of woodcock during synchronized censuses each spring and in autumn to have basic knowledge of woodcock presence and abundance in the country. Data collecting locations were selected by the observers themselves based on their former experiences, which was primarily influenced by the former knowledge about habitat use of woodcock. Their selection of sites could primarily be influenced by the former knowledge about habitat use of woodcock. This situation offers an opportunity to evaluate this choice of habitats. In this study we investigated the habitat selection of woodcock during spring migration and we tested whether the preceding designation of observation points reflects enough knowledge about their habitat preferences.

We used four year spring observation data of the Hungarian woodcock monitoring programme based on synchronized censuses. In order to evaluate the choice of the observers, observation points were buffered with a radius of 874 meters - 2* radius of a 60 ha circle which is known to be used by woodcock individuals in the evening roding period. We intersected the buffers with the Corine Landcover map, and we compared their composition with the composition of buffers of randomly generated points.

To evaluate the choice of the birds, correlation between landcover types preferred or avoided by the observers and the detections of woodcock was tested using the nonparametric Spearman correlation. In the case of forests we performed an additional analysis: We classified the buffers using 3 categories of their forest cover rates (0-45% OPEN, 45-77% MID, 77-100% FORESTED). We took 50 random samples of each forest cover rate class per year and we tested the differences among them in the number of woodcock detections and the frequencies of positive sites (where woodcock observation happened).

According to our results, the locations of the observation points might not be resulted by random choice. Most landcover types preferred or avoided are also correlated with woodcock abundance. However the correlations we have found were weak. The key element of choice is the presence of forests. The higher rate of broad-leaved forests near the points can raise, the higher rate of discontinuous urban fabric or non-irrigated arable land can lower detection probability.