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POSTER ABSTRACT

The ploughed field is the most important breeding habitat for the Northern Lapwing *Vanellus vanellus* in the Czech Republic

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The Northern Lapwing is a significantly declining wader in most of European countries. In the Czech Republic, similar to other areas, wet meadows were dried and this breeding habitat of Lapwings was mostly converted to arable land during the 20th century. This resulted in a shift in the breeding population to arable land, where more than two thirds now nest. Loss of wet meadows together with the intensification of agriculture is considered to be the major cause of the Lapwings' decline. Their breeding abundance decreased by 85% between 1982 and 2000 but since then the number has remained at approximately the same level. Between 2001 and 2003, the abundance varied from 7 000 to 10 000 pairs in the country. The concentrations of Lapwings at particular breeding sites dropped significantly in favour of the spread of small nesting groups or single pairs while the colonies consisting of 10 or more nests become rare.

A nationwide monitoring of Northern Lapwing in the Czech Republic took place in 2008 and data from 151 breeding sites was obtained. The results confirm that the largest breeding associations of Lapwings occur in ploughed fields as well as in the subsequent sown fields created here after spring works (harrowing and sowing) with $9.59 \pm (SE)1.56$ adults per one locality. In contrast, mean numbers of breeding lapwings per one breeding ground are significantly lower in all remaining habitats [$5.79 \pm (SE)0.63$]. We also, indirectly measured nesting success (proportion of sites with mobbing adults or observed chicks) this was found to be the highest at ploughed fields compared with other habitats (winter wheat, spring cereal, meadows). Considering the historical status of breeding sites, the indirectly measured nesting success of Lapwings was greatest at annually occupied sites while the lowest at occasionally occupied sites. The presence of water (including temporary pools) at a breeding site significantly increased the indirect nesting success rate. The preference of Lapwings to nest in ploughed fields was previously confirmed in several other local studies.

The results of our monitoring clearly indicates the importance of ploughed fields for breeding Lapwings in the Czech Republic. On the other hand, the nests situated in ploughed fields are threatened as up to 100% of the clutches may be locally destroyed during spring field works. Therefore, we recommend a focus on a long-term agri-environmental prescription on arable land in order to support Northern Lapwing breeding in ploughed fields. We propose to keep the ploughed fields undisturbed until the end of May and to apply this approach in particular at waterlogged and regularly occupied breeding grounds.