Title: Farmland biodiversity and agricultural management on 237 farms in 13 European and two African regions


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Data Paper

Abstract. Farmland is a major land cover type in Europe and Africa and provides habitat for numerous species. The severe decline in farmland biodiversity of the last decades has been attributed to changes in farming practices, and organic and non-organic farms were randomly selected. Alternatively, farms were sampled along a gradient of management intensity. For all selected farms, the entire farmed area was mapped, which resulted in total in the mapping of 11,338 units attributed to 194 standardized habitat types, provided together with additional descriptors. On each farm, one site per habitat type was randomly selected for species diversity investigations. Species were sampled on 2,115 sites and identified to the species level by expert taxonomists. Species lists and abundance estimates are provided for each site and sampling date (one date for plants and earthworms, three dates for spiders and bees). In addition, farmers provided information about their management practices in face-to-face interviews following a standar-dized questionnaire. Farm management indicators for each farm are available (e.g., nitrogen input, pesticide applications, or energy input). Analyses revealed a positive effect of unproductive areas and a negative effect of intensive management on biodiversity. Communities of the four taxonomic groups strongly differed in their response to habitat characteristics, agricultural management, and regional circumstances. The data has potential for further insights into interactions of farmland biodiversity and agricultural management at site, farm, and regional scale.

Key words: agricultural management; arable crop; bee; BioBio; earthworm; grassland; habitat diversity; permanent crop; spider; Tunisia; Uganda; vascular plant.

The complete data sets corresponding to abstracts published in the Data Papers section of the journal are published electronically as Supporting Information in the online version of this article at http://onlinelibrary.wiley.com/doi/10.1890/15-1985.1/supinfo.

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