largely driven by increases in the average size of farms (Robinson & Sutherland 2002). Second, increasing the scale of farming leads to landscape homogenization (Fahrig et al. 2011), as the fine-scale heterogeneity of low intensity farming gives way to larger-scale, industrialized farms (Benton et al. 2003). The effects of these two changes on biodiversity are often scale-dependent. For instance, Gonthier et al. (2014) found that mobile vertebrates respond more strongly to landscape-scale measures of land-use intensity compared to local-scale measures, whereas the opposite was true for plants. Understanding the scale at which biodiversity responds to land use intensification is important as it can indicate the appropriate scale to implement policies aimed at biodiversity conservation (e.g. agri-environment schemes; Tscharntke et al. 2005, McKenzie et al. 2013).

Here, we present a multi-scaled case-study of the effects of land-use intensification on bird communities in a traditional farming landscape in Eastern Europe. Eastern Europe is one region identified as having large yield gaps and therefore high potential for land-use intensification (see Foley et al. 2011, Mueller et al. 2012). Transylvania is one of Eastern Europe's ecologically most notable regions dominated by traditional, semi-subsistence farming that has maintained a species-rich mosaic of arable fields, grasslands, and forests (Wilkie 2001, Akeroyd & Page 2007). Until recently Transylvania's farmland has changed relatively little, yet, the region is now undergoing rapid socio-demographic and land-use changes (Fig. 1) (Mikulcak et al. 2013). Notably, an increase in land-use intensity could cause a loss of land-cover heterogeneity and woody vegetation in the currently heterogeneous landscapes of Transylvania, which may significantly impact biodiversity in the future.

To assess the impact of land-use on the region's avifauna, we undertook a natural experiment by strategically selecting survey sites along two gradients related of land-use intensity; (1) the cover