

Appendix 1

Local population decline of the threatened lesser grey shrike, *Lanius minor*, is linked to the modernisation of the rural landscape

Anton Krištín, Herbert Hoi, Peter Kaňuch

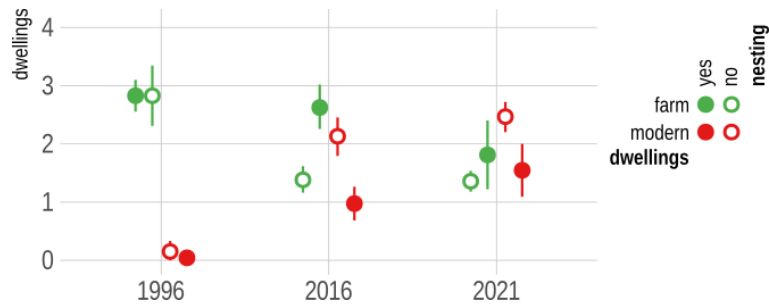


Fig. S1. The average number of traditional active farmsteads (farm) and modern homesteads (modern) with 95% confidence intervals in nesting territories, measured in a buffer of 100 m radius around the nest. Nesting refers to whether the territory was occupied or not in a given year.

Table S1. Simple slopes analysis and Johnson-Neyman interval

Slope of modern when farm = 0.00:

Est.	S.E.	z value	p
-3.06	0.65	-4.71	0.00

Slope of modern when farm = 1.00:

Est.	S.E.	z value	p
-1.88	0.36	-5.24	0.00

Slope of modern when farm = 2.00:

Est.	S.E.	z value	p
-0.7	0.35	-1.99	0.05

Johnson-Neyman interval calculated using false discovery rate adjusted $t = 2.35$.
 When farm is outside the interval [1.92, 6.07], the slope of modern is $p < 0.05$.
 The range of observed values of farm is [0.00, 5.00].

Table S2. Odds ratios with 95% confidence intervals and p-values of different logistic regression models with number of traditional active farmsteads (farm) and modern homesteads (modern) in 100 m buffer around the nest tree as fixed factors. Year was used as a fixed effect of an ordinal variable (models #1 and #3) or as a random effect factor (model #5). Outputs of model #1 (not shown here) are identical with Table 2

model	#2		#3		#4		#5	
predictors	odds ratios	p	odds ratios	p	odds ratios	p	odds ratios	p
(intercept)	0.91 (0.50–1.65)	0.75	0.88 (0.48–1.61)	0.67	1.40 (0.70–2.82)	0.34	1.40 (0.70–2.81)	0.34
farm	1.34 (1.11–1.64)	0.003	1.31 (1.07–1.61)	0.010	1.12 (0.89–1.43)	0.33	1.12 (0.89–1.42)	0.33
modern	0.47 (0.37–0.59)	<0.001	0.50 (0.37–0.66)	<0.001	0.28 (0.17–0.45)	<0.001	0.28 (0.17–0.47)	<0.001
farm × modern					1.29 (1.05–1.61)	0.017	1.29 (1.05–1.60)	0.017
year [linear]			0.73 (0.40–1.31)	0.29				
year [quadratic]			0.90 (0.56–1.42)	0.64				
random effects								
σ^2								3.29
τ_{00}								0.00
R^2	0.26		0.27		0.27		0.41 (m) / NA (c)	
AIC	346.9		349.4		342.9		344.9	

σ^2 , mean variance; τ_{00} , between-subject variance; m, marginal; c, conditional