

Supplementary material

Appendix 1

Table A1. Generalized linear mixed models for analysing (a) female breeders' survival, (b) number of fledglings, (c) fledging success and (d) male fledgling recruitment in relation to female breeder's age (Young: one year of age; Old: older than one year), clutch volume, helper presence (Yes/No) and population (Damxung/Tianjun) in the ground tit. For (a), (b) and (c), n = 92 nests of 75 female breeders from 7 years; for (d), n = 203 individuals from 79 nests of 66 female breeders in 7 years. Significant variables are indicated in bold.

	(a) Female breeder survival				(b) Number of fledglings				(c) Fledging success				(d) Male fledgling recruitment			
	Estimate	SE	z	P	Estimate	SE	z	P	Estimate	SE	z	P	Estimate	SE	z	P
Helper presence (Y/N)	0.7	0.4	1.6	0.121	0.0	0.1	0.0	0.994	0.2	0.3	0.6	0.526	0.3	0.4	0.8	0.422
Female breeder age (Old)	-0.1	0.5	-0.2	0.823	0.1	0.1	0.7	0.475	-0.3	0.3	-1.0	0.324	0.0	0.4	0.0	0.969
Clutch volume	-0.9	0.5	-2.0	0.050	0.4	0.1	4.0	<0.001	0.3	0.3	1.1	0.261	-0.5	0.4	-1.2	0.236
Population (Tianjun)	-0.4	0.5	-0.8	0.420	0.1	0.1	0.9	0.380	0.2	0.4	0.4	0.693	0.2	0.8	0.3	0.784
Helper x clutch volume	-1.4	1.0	-1.4	0.156	0.2	0.2	1.0	0.304	1.1	0.7	1.6	0.118	0.1	0.8	0.1	0.902