

Ecography

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Plard, F., Gaillard, J.-M., Coulson, T., Hewison, A. J. M., Delorme, D., Warnant, C., Nilsen, E. B. and Bonefant, C. 2013. Long-lived and heavier females give birth earlier in roe deer. – *Ecography* 36: xxx–xxx.

Supplementary material

Appendix 1 Analysis of the influence of age on parturition date (PD) of roe deer females in the population of Trois Fontaines, France. The six best models including an effect of age explaining variation in parturition date (Table 2) are presented. These models include a measure of female quality based on a combination of longevity and median adult body mass (PC1), female cohort (Cohort), current year (Year) and female age (Age) with three alternative patterns of age-dependence. Age is included either as a two-level factor (primiparous vs. multiparous), as a three-level factor (primiparous vs. prime-aged vs. senescent), or as a full-age dependent (11 levels, 2-12 y.o.) variable. K indicates the number of estimated parameters for models including age as a two-level factor, LL is the maximum log-Likelihood, Δ AIC indicates the difference in the Akaike's Information Criterion between two competing models.

Age Model Model	K	2 levels			<i>w_i</i>	3 levels			Full-age	
		LL	ΔAIC	LL		LL	ΔAIC	LL	ΔAIC	
1 PD ~ PC1 + Age	5	-614.063	0.000	-614.958	0.596	-614.958	1.701	-606.132	0.000	
2 PD ~ PC1 * Age	6	-613.729	1.333	-613.108	0.306	-613.108	0.000	-598.667	5.070	
4 PD ~ Age	4	-619.431	8.737	-619.330	0.008	-619.330	8.445	-611.508	8.751	
5 PD ~ PC1 + Age + Year	30	-594.090	10.055	-595.160	0.004	-595.160	12.104	-587.575	12.885	
8 PD ~ PC1 + Age + Cohort	27	-600.272	16.419	-602.477	0.000	-602.477	20.738	-592.885	17.506	
9 PD ~ Age + Year	29	-599.359	18.592	-599.064	0.000	-599.064	17.912	-592.333	20.401	