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Supplementary material

Appendix 1

Table A1. Results of a GLMER assessing the relationship between nestling body condition (BCI) and the probability of parasite prevalence in the adults in the following breeding season. Birth year was also included in the model. A significant factor is highlighted in bold. Any samples with missing values were removed for the sake of the statistical analysis. The Interaction terms tested are separated by a colon (:)

Random effect Variance/Std. dev.	Fixed effects	Estimate	SE	DF	X^2	P-value
0/0	**Female**					
	Birth year	-0.08	0.13	1	0.44	0.5
	Nestling condition	0.34	0.15	1	4.9	**0.028**
	Birth year: nestling condition	-0.04	0.14	1	0.07	0.78
3.8e-17/6.2e-09	**Male**					
	Birth year	0.05	0.14	1	0.12	0.71
	Nestling condition	0.16	0.15	1	1.08	0.29
	Birth year: nestling condition	0.12	0.16	1	0.58	0.44

Table A2. The results of a GLMER assessing the factors that predict fitness in both female and male birds. The fitness measure is the total number of offspring that recruit back into the breeding population from three possible breeding attempts. The recruitment from each breeding attempt was monitored over the three years that followed. We include the birth year, first recruit year, number of additional recruit years and haemosporida prevalence or absence in the model. We included brood ID as a random effect. Significant factors are highlighted in bold and constitute the minimal model. Interaction terms tested are separated by a colon (:).

Random effect Variance/std. dev.	Fixed effects	Estimate	SE	DF	X^2	P-value
0.11/0.10	**Female**					
	First recruit year (FCR)	-0.15	0.15	1	1.05	0.3
	Additional recruit year (ARY)	0.32	0.11	1	7.8	**0.0048**
	Parasite prevalence	0.48	0.22	1	4.9	**0.025**
	Birth year	-0.25	0.09	1	7.3	**0.0068**
	FCR:Birth year	0.114	0.14	1	0.59	0.43
	ARY:Birth year	0.035	0.13	1	0.06	0.79
3.1e-17/5.5e-09	**Male**					
	First recruit year (FCR)	-0.05	0.12	1	0.23	0.63
	Additional recruit year (ARY)	0.41	0.09	1	15.2	**<0.0001**
	Parasite prevalence	-0.11	0.16	1	0.44	0.5
	Birth year	-0.33	0.07	1	19.2	**<0.0001**
	FCR:Birth year	0.017	0.12	1	1.8	0.16
	ARY:Birth year	0.031	0.08	1	0.12	0.72

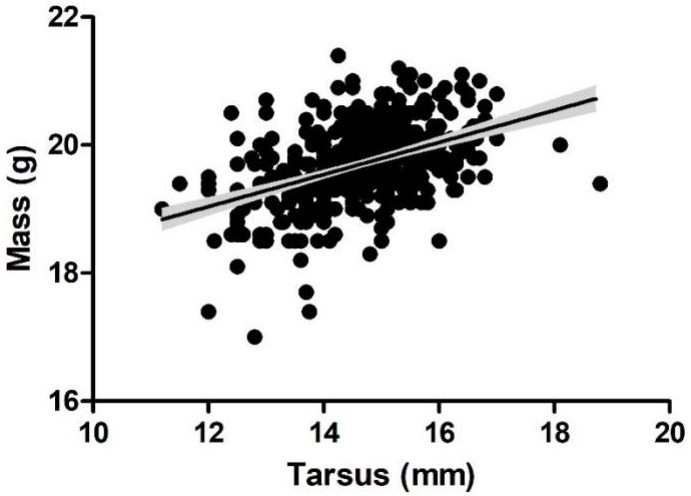

Figure A1. The relationship between the tarsus length (mm) and the mass (g) of 13-day old collared flycatcher nestlings. The graph shows the fitted line and 95% confidence intervals (R^2=0.19, P=<0.0001).