ELECTRONIC APPENDIX

This is the Electronic Appendix to the article

Brain size, innovative propensity and migratory behaviour in temperate Palearctic birds

by

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Table 1. Percentage of variance in migratory strategy, innovation frequency (adjusted for research effort) and relative brain size explained at different taxonomic levels, based on a variance component analysis.

	Migratory strategy	Innovation rate	Relative brain size
Parvorder	4.5	7.7	13.2
Superfamily	0.0	10.1	8.6
Family	49.0	0.0	34.0
Genus	24.5	6.9	17.7
Species	21.9	75.3	26.5

Table 2. Relationship between foraging innovation rate and migratory strategies (residents + SD migrants vs. LD migrants vs), while adjusting for potential confounding variables. The relationship is tested with a GLMM with binomial error and logit link, which includes family as random factor to control for taxonomic effects. The minimum adequate model includes all significant fixed effects at $P < 0.05$. The *p*-values that remain significant under Bonferroni standards are shown in bold.

Variable	Estimate	Standard Error	T_{101}	p
Innovation rate	-3.746	0.927	-4.04	**0.0001**
Mid-latitude of the range	11.761	4.838	2.43	0.0168
Ground feeding	-1.540	0.586	-2.63	**0.0099**
Conifer specialist	-4.138	1.442	-2.87	**0.0051**
Body mass	-3.135	1.086	-2.89	**0.0047**
Insectivorous diet	1.594	0.671	2.38	0.0194

Table 3. Relationship between brain size, relative to body size, and migratory strategies (i.e. residents, SD migrants and LD migrants), while adjusting for potential confounding variables. The relationship is tested with a GLMM with ordinal error, which includes family as random factor to control for taxonomic effects. The minimum adequate model includes all significant fixed effects at $P < 0.05$. The *p*-values that remain significant under Bonferroni standards are shown in bold.

Variable	Estimate	Standard Error	*Z*	*p*
Relative brain size	-2.745	0.817	3.36	**0.0008**
Conifer specialist	1.579	0.719	-2.19	0.0282
Insectivorous diet	-2.854	0.636	4.48	**< 0.0001**
Clutch size	-0.428	0.216	1.98	0.0474