

Table S1 Variance component estimates and corresponding log-likelihoods of models fitting ‘animal’ and either ‘dominance’ or ‘epistasis’ as random effects. In all cases the log-likelihoods of the two models are almost identical, with variance component estimates for ‘animal’ and ‘residual’ also corresponding well between the two models.

Trait	Residual	Animal	Dominance	Additive x Additive Epistasis	Log Likelihood
Fitness	0.733	0.001	0.265	-	-1422.461
	0.737	0.000	-	0.262	-1422.525
aLM2-4	0.409	0.562	0.029	-	-2041.995
	0.405	0.558	-	0.036	-2041.742
aLM2-5	0.270	0.408	0.319	-	-2059.721
	0.225	0.360	-	0.410	-2059.465
aLM2-8	0.225	0.551	0.209	-	-1898.784
	0.213	0.544	-	0.231	-1898.82
aLM3-7	0.225	0.465	0.309	-	-2000.418
	0.197	0.441	-	0.362	-2000.675
aLM3-9	0.386	0.292	0.317	-	-2195.059
	0.354	0.262	-	0.380	-2195.264
aLM4-5	0.271	0.482	0.249	-	-2023.281
	0.233	0.440	-	0.326	-2022.891
aLM5-6	0.390	0.475	0.129	-	-2075.378
	0.382	0.469	-	0.144	-2075.242
aLM5-8	0.270	0.488	0.257	-	-2054.424
	0.221	0.432	-	0.355	-2053.947