

Table 1: PhylANOVA results for all song traits. Sorted from most to least significant. Song-Stable and Song-Plastic columns show means. “*” denotes traits with significantly different groups.

Song Trait	Song-Stable	Song-Plastic	F-Value	Corrected α	p-Value
Syllable Rep	2.0085	4.0433	41.7621	0.0071	0.001*
Song Rep	1.2715	4.0179	32.4078	0.0083	0.001*
Syll Song	1.2871	2.359	9.3669	0.01	0.078
Duration	0.7858	1.2927	1.9851	0.0125	0.432
Continuity	-1.3274	-1.0286	1.9026	0.0167	0.509
Interval	1.5987	1.218	1.3307	0.025	0.579
Song Rate	1.8978	2.0971	0.606	0.05	0.702

Table 2: Brownie results for song traits. Sorted from most to least significant. Song-Stable and Song-Plastic columns show means. “*” denotes traits where the two-rate model fit the data significantly better than the one-rate model.

Song Trait	One Rate	Two Rates	p-Value
Duration	-71.446	-66.1294	0.001*
Syll Song	-105.515	-95.4003	0.001*
Song Rate	-43.6111	-39.0486	0.003*
Interval	-45.7435	-41.7043	0.004*
Continuity	-26.6192	-26.0083	0.269
Syllable Rep	-115.1413	-114.9815	0.572
Song Rep	-108.4187	-108.271	0.587