

Table S1. Model averaged coefficients ($< 10 \Delta AICc$) and importance for all independent variables included in the study. We used generalized least squares models with a Gaussian spatial correlation structure. Model fit was evaluated using AICc. NRI is the Net Relatedness Index.

Region	Model terms	Model Averaged Coefficients	Importance
Tropics	Average C-score	1.60	1.00
	NRI	-0.25	1.00
	Mean annual precipitation	-2.30E-05	0.86
	Mean annual temperature	9.00E-04	0.35
	Species richness	-2.83E-03	1.00
Northern Temperate	Average C-score	0.75	1.00
	NRI	-1.00	1.00
	Mean annual precipitation	-2.59E-04	1.00
	Mean annual temperature	-0.02	1.00
	Species richness	-4.77E-03	0.98
Southern Temperate	Average C-score	0.22	0.33
	Mean annual precipitation	-2.20E-04	0.82
	NRI	-0.91	1.00
	Species richness	-4.79E-03	0.80
	Mean annual temperature	0.01	0.72
	Average C-score	0.22	0.33