

Supplementary material

Table S1. Multiple regression models of environmental variables against \log_{10} medians of the P and S components obtained from PVR. Nomenclature as in Table 1 in the main text.

Model	Weighting variable	Standardized coefficients (P component)				Standardized coefficients (S Component)			
		Temp	Precip	GVI	R ²	Temp	Precip	GVI	R ²
Env	None	0.761*	-0.230*	0.074	0.473	0.821*	0.016	0.051	0.741
Env + Spa	None	0.680*	-0.01	-0.09	0.672	0.742*	0.128*	-0.02	0.771
Env	1-Log ₁₀ (1/SR ²)	0.653*	-0.330*	0.154*	0.375	0.784*	-0.03	0.071	0.651
Env	Species richness	0.529*	-0.330*	0.237*	0.285	0.767*	-0.05	0.031	0.570

Table S2. Multiple regression models of environmental variables against \log_{10} means of total (T), phylogenetic (P) and specific (S) components for *Plethodon* salamanders in eastern North America, excluding *Plethodon cinereus* from the analysis. Model 1 shows regressions excluding cells comprising monospecific assemblages of *P. cinereus*, whereas model 2 shows an extreme scenario where all presences for *P. cinereus* are excluded.

Model	Body size components	Standardized coefficients			
		Temp	Precip	GVI	R ²
1	Total	0.564*	-0.406*	0.018	0.315
1	P-component	0.507*	-0.342*	-0.081	0.278
1	S-component	0.389*	-0.334*	0.238*	0.167
2	Total	0.118	-0.314*	0.152*	0.147

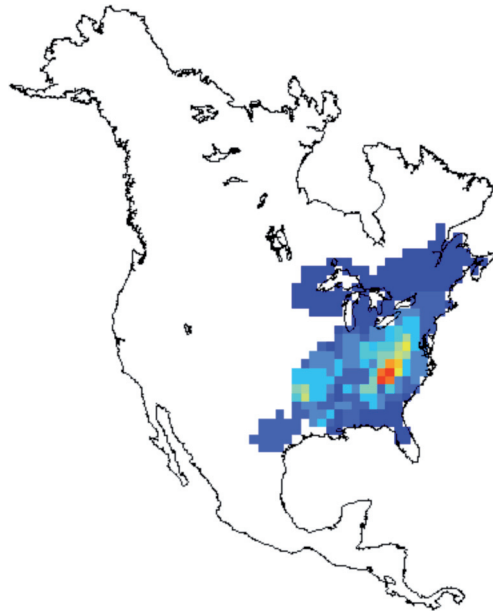


Figure S1. Geographic patterns of species richness for *Plethodon* salamanders in eastern North America. Blue colors show low species richness and red represents the highest values.