



Fig. S1. Map of forest cover (green), study sites (circles), and 50x50-km landscape blocks (grid cells) for eastern red-backed salamanders (*Plethodon cinereus*) sampled from 1880 to 2015 in North America. Symbol fill for study sites represents observed proportion of striped *P. cinereus*.

Table S1. Standardized coefficients for regressions and covariances in a path analysis model of *Plethodon cinereus* morph frequencies in landscape blocks at varying spatial scales (10 x 10 km, 50 x 50 km, 100 x 100 km) and when the minimum number of individuals (*n*) at each site is 20 (*N* = 1170 sites), 30 (*N* = 848 sites), 40 (*N* = 667 sites), and 50 (*N* = 574 sites). Bold indicates significant coefficients at $P \leq 0.05$.

Spatial scale	Relationship	Variables	Standardized coefficients			
			<i>n</i> ≥ 20	<i>n</i> ≥ 30	<i>n</i> ≥ 40	<i>n</i> ≥ 50
10 x 10 km	Regressions	Striped ← Temperature	-0.383	-0.358	-0.325	-0.326
		Striped ← Forest	0.297	0.312	0.325	0.305
		Striped ← Temperature*Forest	0.088	0.106	0.102	0.084†
		Temperature ← Year	-0.349	-0.281	-0.182	-0.136
		Forest ← Year	0.152	0.167	-0.152	0.165
	Covariances	Temperature, Forest	-0.110	-0.079	-0.037	-0.030
	50 x 50 km	Regressions	Striped ← Temperature	-0.347	-0.320	-0.278
Striped ← Forest			0.335	0.353	0.362	0.343
Striped ← Temperature*Forest			0.152	0.171	0.162	0.122*
Temperature ← Year			-0.362	-0.299	-0.201	-0.154
Forest ← Year			0.171	0.167	0.120	0.122
Covariances		Temperature, Forest	-0.253	-0.226	-0.172	-0.159
100 x 100 km		Regressions	Striped ← Temperature	-0.350	-0.327	-0.288
	Striped ← Forest		0.320	0.344	0.360	0.351
	Striped ← Temperature*Forest		0.162	0.186	0.176	0.142
	Temperature ← Year		-0.371	-0.308	-0.209	-0.164
	Forest ← Year		0.209	0.199	0.146	0.127
	Covariances	Temperature, Forest	-0.197	-0.149	-0.070	-0.045

† $P = 0.075$, * $P = 0.055$

Table S2. Confidence intervals (95%) for standardized coefficients based on 1000 iterations of a path analysis model when randomly choosing one site within each 50 x 50-km landscape block ($n = 292$) in each iteration.

Relationship	Variables	Low _{95%}	High _{95%}
Regressions	Striped \leftarrow Temperature	-0.41	-0.31
	Striped \leftarrow Forest	0.24	0.34
	Striped \leftarrow Temperature*Forest	0.12	0.23
	Temperature \leftarrow Year	-0.33	-0.24
	Forest \leftarrow Year	0.21	0.31
Covariances	Temperature, Forest	-0.33	-0.31