

Supplementary material

Table S1. Relationships between predictors and species density, and models for each group of variables. The sign of the relationships and percentage of explained variance ( $R^2$ ) are shown. A, S and E are the area, spatial and environmental models, respectively. The bootstrap SE values for the model parameters are given in parentheses.  $F^3$  is the cubic function of the variable considered.

Variable	Function (sign)	$R^2$ (%)	F	DF	p
Long	ns	3.7	1.36	1, 35	0.252
Long <sub>min</sub>	ns	0.1	0.04	1, 35	0.848
Long <sub>max</sub>	linear (-)	14.4	5.91	1, 35	0.020
Lat	linear (-)	45.5	29.17	1, 35	<0.001
Lat <sub>min</sub>	quadratic (+, -)	33.5	8.58	2, 34	0.001
Lat <sub>max</sub>	linear (-)	59.0	50.39	1, 35	<0.001
Alt	linear (+)	15.9	6.62	1, 35	0.015
Alt <sub>ran</sub>	ns	0.6	0.20	1, 35	0.657
T <sub>ann</sub>	quadratic (+, -)	46.9	15.01	2, 34	<0.001
T <sub>ran</sub>	ns	3.7	1.34	1, 35	0.255
T <sub>max</sub>	linear (+)	14.4	5.89	1, 35	0.021
T <sub>min</sub>	cubic (-, -, -)	56.7	14.42	3, 33	<0.001
P <sub>ann</sub>	linear (+)	11.7	4.63	1, 35	0.038
P <sub>ran</sub>	ns	2.6	0.92	1, 35	0.343
P <sub>dri</sub>	linear (+)	14.5	5.92	1, 35	0.020
P <sub>dri</sub>	ns	0.3	0.12	1, 35	0.730
Model for E	T <sub>ann</sub> + T <sub>max</sub> + F <sup>3</sup> T <sub>min</sub> + P <sub>ann</sub>	68.4(5.9)	13.43(8.16)	5, 31	<0.001(2.1E-05)
Model for S	Lat + Lat <sub>max</sub>	77.2(6.6)	57.67(28.23)	2, 34	<0.001(8.9E-08)
Model for E+S	T <sub>ann</sub> + T <sub>max</sub> + F <sup>3</sup> T <sub>min</sub> + P <sub>ann</sub> + Lat + Lat <sub>max</sub>	87.5(3.3)	24.60(20.66)	8, 28	<0.001(6.5E-08)

Table S2. Relationships between predictors and density of endemics, and models for each group of variables. The sign of the relationships and percentage of explained variance ( $R^2$ ) are shown. A, S and E are the area, spatial and environmental models, respectively. The bootstrap SE values for the model parameters are given in parentheses.  $f^2$  is the quadratic function of the variable considered.

Variable	Function (sign)	$R^2$ (%)	F	DF	p
Long	cubic (-, +, -)	21.2	2.96	3, 33	0.046
Long <sub>min</sub>	cubic (-, +, -)	22.3	3.15	3, 33	0.038
Long <sub>max</sub>	ns	3.0	1.10	1, 35	0.301
Lat	quadratic (-, +)	88.4	130.17	2, 34	<0.001
Lat <sub>min</sub>	quadratic (-, +)	74.7	50.30	2, 34	<0.001
Lat <sub>max</sub>	cubic (-, +, -)	85.4	64.54	3, 33	<0.001
Alt	quadratic (+, -)	30.7	7.53	2, 34	0.002
Alt <sub>ran</sub>	quadratic (+, -)	22.3	4.88	2, 34	0.014
T <sub>ann</sub>	linear (+)	55.4	43.48	1, 35	<0.001
T <sub>ran</sub>	linear (+)	11.5	4.54	1, 35	0.040
T <sub>max</sub>	linear (+)	57.5	47.38	1, 35	<0.001
T <sub>min</sub>	linear (+)	37.6	21.06	1, 35	<0.001
P <sub>ann</sub>	ns	0.0	0.00	1, 35	0.947
P <sub>ran</sub>	ns	2.4	0.87	1, 35	0.358
P <sub>dri</sub>	ns	4.5	1.63	1, 35	0.210
P <sub>dri</sub>	ns	1.1	0.39	1, 35	0.535
Model for E	Alt + Alt <sub>ran</sub> + T <sub>ran</sub> + T <sub>min</sub> + T <sub>max</sub>	79.7(4.9)	24.33(12.12)	5, 31	<0.001(1.6E-06)
Model for S	$f^2$ Long + $f^2$ Lat	90.9(2.7)	80.04(36.59)	4, 32	<0.001(2.8E-12)
Model for E+S	Alt + Alt <sub>ran</sub> + T <sub>ran</sub> + T <sub>min</sub> + T <sub>max</sub> + $f^2$ Long + $f^2$ Lat	93.3(1.5)	41.72(31.09)	9, 27	<0.001(1.3E-11)