Table S1. The R^2 of relationships between environmental variables and leaf N and P and N:P ratio based on unitary regression models.

Life form	Leaf concentrations	Bioclimatic variables	R^2	p-Value
Fern	Log10[Leaf N]	Bio15	0.293	0.056
Fern	Log10[Leaf P]	Bio12	0.280	0.063
Fern	Log10[N:P Ratio]	Bio4	0.216	0.109
Fern	Log10[Leaf N]	Bio12	0.181	0.148
Fern	Log10[Leaf P]	Bio4	0.170	0.161
Fern	Log10[Leaf P]	Bio1	0.164	0.171
Fern	Log10[N:P Ratio]	Aridity	0.156	0.182
Fern	Log10[Leaf P]	Aridity	0.154	0.184
Fern	Log10[Leaf N]	Bio1	0.139	0.210
Fern	Log10[N:P Ratio]	Bio12	0.104	0.282
Fern	Log10[N:P Ratio]	Bio15	0.082	0.344
Fern	Log10[N:P Ratio]	Bio1	0.046	0.482
Fern	Log10[Leaf N]	Aridity	0.007	0.779
Fern	Log10[Leaf P]	Bio15	0.003	0.858
Fern	Log10[Leaf N]	Bio4	0.000	0.988
Herb	Log10[Leaf N]	Bio1	0.028	0.000
Herb	Log10[N:P Ratio]	Bio1	0.013	0.014
Herb	Log10[Leaf P]	Aridity	0.013	0.015
Herb	Log10[N:P Ratio]	Bio15	0.009	0.034
Herb	Log10[N:P Ratio]	Aridity	0.008	0.049
Herb	Log10[N:P Ratio]	Bio12	0.006	0.082
Herb	Log10[Leaf P]	Bio12	0.004	0.169
Herb	Log10[Leaf P]	Bio15	0.003	0.269
Herb	Log10[Leaf N]	Aridity	0.002	0.352
Herb	Log10[Leaf N]	Bio15	0.001	0.474
Herb	Log10[Leaf N]	Bio12	0.000	0.648
Herb	Log10[Leaf P]	Bio1	0.000	0.867
Herb	Log10[Leaf P]	Bio4	0.000	0.912
Herb	Log10[N:P Ratio]	Bio4	0.000	0.917
Herb	Log10[Leaf N]	Bio4	0.000	0.982
Shrub	Log10[Leaf P]	Bio1	0.234	0.000
Shrub	Log10[Leaf N]	Bio1	0.156	0.000
Shrub	Log10[Leaf P]	Bio4	0.155	0.000
Shrub	Log10[Leaf N]	Bio4	0.136	0.000
Shrub	Log10[Leaf N]	Bio15	0.097	0.000
Shrub	Log10[Leaf P]	Bio15	0.092	0.000
Shrub	Log10[N:P Ratio]	Aridity	0.064	0.000
Shrub	Log10[N:P Ratio]	Bio1	0.058	0.000
Shrub	Log10[Leaf P]	Aridity	0.041	0.000
Shrub	Log10[N:P Ratio]	Bio4	0.020	0.000

Shrub	Log10[N:P Ratio]	Bio12	0.016	0.001
Shrub	Log10[Leaf N]	Bio12	0.007	0.024
Shrub	Log10[N:P Ratio]	Bio15	0.006	0.041
Shrub	Log10[Leaf P]	Bio12	0.001	0.446
Shrub	Log10[Leaf N]	Aridity	0.000	0.585
Tree	Log10[Leaf P]	Bio4	0.234	0.000
Tree	Log10[N:P Ratio]	Bio4	0.158	0.000
Tree	Log10[Leaf P]	Bio1	0.144	0.000
Tree	Log10[N:P Ratio]	Bio1	0.099	0.000
Tree	Log10[Leaf P]	Bio15	0.067	0.000
Tree	Log10[Leaf N]	Bio4	0.063	0.001
Tree	Log10[N:P Ratio]	Bio15	0.048	0.003
Tree	Log10[Leaf N]	Bio1	0.038	0.008
Tree	Log10[Leaf N]	Aridity	0.026	0.029
Tree	Log10[N:P Ratio]	Bio12	0.019	0.064
Tree	Log10[Leaf N]	Bio15	0.013	0.116
Tree	Log10[Leaf P]	Bio12	0.013	0.122
Tree	Log10[Leaf P]	Aridity	0.012	0.139
Tree	Log10[Leaf N]	Bio12	0.000	0.863
Tree	Log10[N:P Ratio]	Aridity	0.000	0.980
Vine	Log10[Leaf N]	Bio1	0.312	0.001
Vine	Log10[Leaf P]	Bio1	0.186	0.015
Vine	Log10[Leaf P]	Bio12	0.134	0.042
Vine	Log10[N:P Ratio]	Bio12	0.061	0.179
Vine	Log10[N:P Ratio]	Aridity	0.059	0.187
Vine	Log10[Leaf P]	Bio4	0.051	0.222
Vine	Log10[N:P Ratio]	Bio15	0.040	0.282
Vine	Log10[N:P Ratio]	Bio4	0.034	0.324
Vine	Log10[Leaf P]	Aridity	0.029	0.361
Vine	Log10[Leaf N]	Bio12	0.026	0.389
Vine	Log10[Leaf P]	Bio15	0.017	0.483
Vine	Log10[N:P Ratio]	Bio1	0.014	0.528
Vine	Log10[Leaf N]	Bio4	0.004	0.727
Vine	Log10[Leaf N]	Aridity	0.002	0.816
Vine	Log10[Leaf N]	Bio15	0.002	0.826