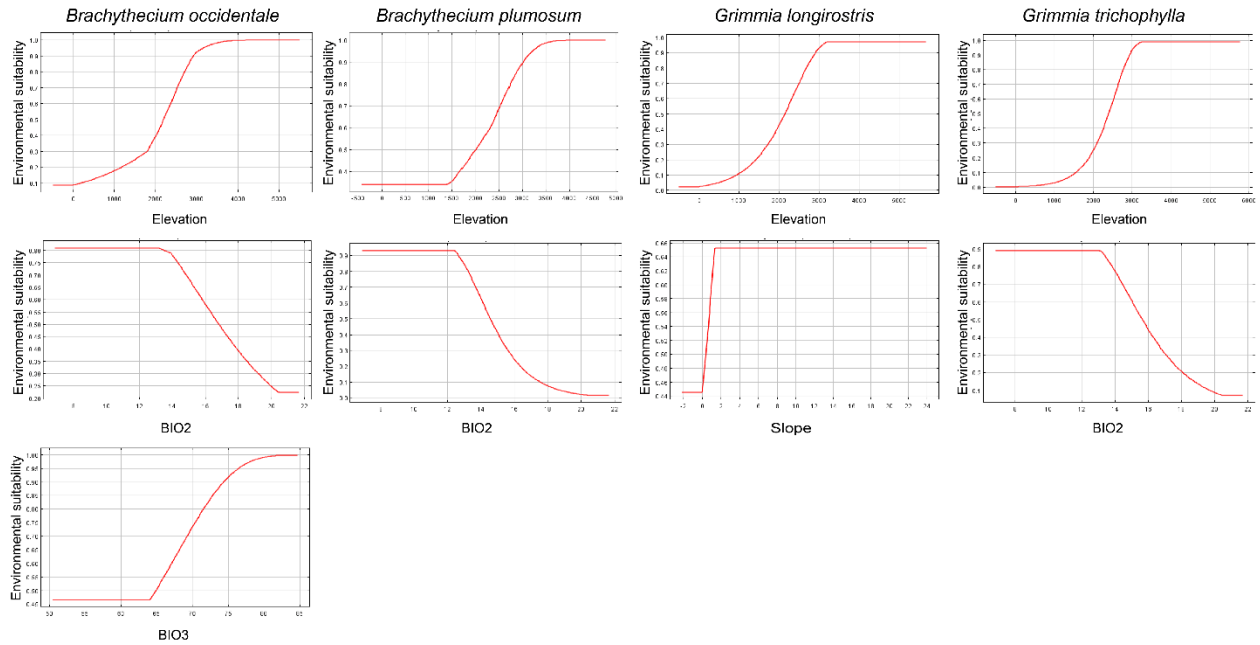
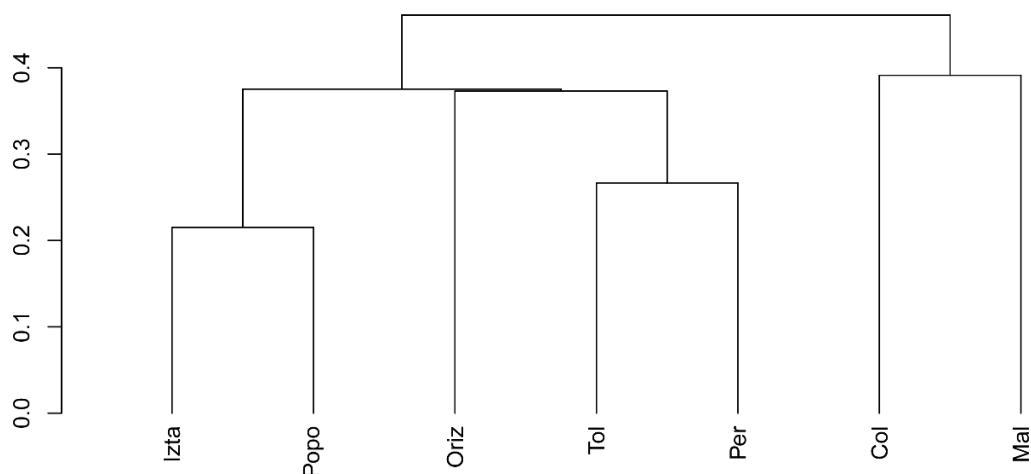


Supplementary material



Supplementary material Figure 1. Species response curves showing the relationship between predicted environmental suitability and each predictor used in the final model for each species.



Supplementary material Figure 2. Dendrogram based on the Sørensen dissimilarity index showing floristic similarity relationships among the mountain tops analyzed. Abbrev.: Izta, Iztaccíhuatl; Popo, Popocatepetl; Oriz, Pico de Orizaba; Tol, Nevado de Toluca; Per, Cofre de Perote; Col, Nevado de Colima; Mal, La Malinche.

Supplementary material Table 1. Species occurrence coordinates used for modeling. The number in parentheses following each species name (n) indicates the final number of occurrences used for each species.

Species	Longitude	Latitude
<i>Brachythecium occidentale</i> (n = 37)	-101.679	20.6125
	-98.7125	20.1625
	-98.5958	20.0791667
	-98.6542	20.0041667
	-98.9125	19.9458333
	-102.679	19.9291667
	-98.5792	19.9291667
	-98.7292	19.9125
	-98.4958	19.8291667
	-99.1542	19.7625
	-99.7625	19.7291667
	-97.2292	19.7125
	-99.4292	19.6291667

	-97.0458	19.6125
	-96.9042	19.6041667
	-98.7458	19.5541667
	-98.5458	19.5541667
	-97.1625	19.5041667
	-102.179	19.4625
	-98.5792	19.4625
	-101.513	19.4291667
	-98.7458	19.4291667
	-99.1458	19.4125
	-99.2792	19.3625
	-99.0875	19.3375
	-98.7625	19.3291667
	-99.3792	19.3208333
	-98.0125	19.3041667
	-101.663	19.2625
	-98.6542	19.2125
	-99.0458	19.1625
	-99.1542	19.1458333
	-98.7042	19.1291667
	-99.7542	19.1041667
	-98.9625	19.0958333
	-98.0792	19.0791667
	-98.6792	19.0125
<i>Brachythecium plumosum</i> (n = 25)	-98.2125	20.2291667
	-98.7042	20.1958333
	-98.7458	20.1125
	-98.6292	20.1041667
	-98.4792	19.8791667
	-96.7958	19.8625
	-97.4625	19.8541667
	-97.3458	19.8291667
	-101.863	19.7625
	-97.2292	19.7125
	-96.9125	19.6791667
	-100.796	19.6625
	-97.0125	19.6291667
	-99.4042	19.5791667
	-98.5792	19.4625
	-98.7625	19.3291667
	-98.6292	19.2791667
	-99.2958	19.2625
	-98.2958	19.2625
	-98.7125	19.2291667

	-98.7042	19.1291667
	-98.9792	19.0958333
	-99.7458	19.0625
	-97.2625	19.0541667
	-98.6792	19.0125
<i>Grimmia longirostris</i> (n = 50)	-102.529	21.7375
	-102.838	21.3041667
	-99.4708	20.4208333
	-99.6292	20.3041667
	-98.7042	20.1958333
	-99.9792	20.1791667
	-99.4292	20.1791667
	-100.154	20.1708333
	-98.7458	20.1125
	-98.6292	20.1041667
	-99.3458	20.0541667
	-98.5292	20.0291667
	-98.3792	19.9791667
	-98.7292	19.9208333
	-100.779	19.8958333
	-98.4708	19.8958333
	-99.8458	19.8541667
	-102.079	19.8041667
	-99.3375	19.7708333
	-98.7958	19.7708333
	-98.5708	19.7708333
	-99.7708	19.7291667
	-98.0958	19.6708333
	-97.0458	19.6208333
	-98.8208	19.5791667
	-103.621	19.5708333
	-98.6708	19.5708333
	-97.2458	19.5708333
	-97.1292	19.5708333
	-99.4708	19.5541667
	-99.2375	19.5291667
	-97.2208	19.4791667
	-99.3792	19.4208333
	-98.7208	19.3291667
	-99.3208	19.3208333
	-100.429	19.3041667
	-98.0208	19.3041667
	-99.1625	19.2875
	-99.2792	19.2208333

	-98.6792	19.2208333
	-98.9292	19.1958333
	-98.3625	19.1791667
	-99.7458	19.1708333
	-99.2208	19.1458333
	-98.6208	19.1208333
	-99.5208	19.1041667
	-99.6292	19.0791667
	-97.2708	19.0541667
	-99.1625	19.0208333
	-97.2292	18.9708333
<i>Grimmia trichophylla</i> (n = 29)	-98.7208	20.1708333
	-98.5792	20.1208333
	-98.6292	20.0208333
	-98.4708	19.8958333
	-98.5458	19.8041667
	-99.7708	19.7291667
	-99.4708	19.7291667
	-97.1208	19.6291667
	-103.596	19.5791667
	-102.029	19.5791667
	-99.4958	19.5708333
	-97.2458	19.5708333
	-99.5958	19.5541667
	-97.2042	19.4458333
	-99.3792	19.4208333
	-98.7208	19.3291667
	-100.096	19.3208333
	-99.3708	19.3208333
	-99.5458	19.3041667
	-98.0208	19.3041667
	-99.2792	19.2208333
	-98.6542	19.2208333
	-99.7958	19.1791667
	-98.5458	19.1708333
	-98.7042	19.1291667
	-99.7208	19.1208333
	-97.2292	19.1208333
	-98.9708	19.1041667
	-98.6292	19.0541667

Supplementary material Table 2. Relative importance of environmental predictors in each preliminary maxent model based on permutation importance (“Perm. imp.”) and percent contribution (“% cont.”).

Predictor variables	<i>Brachythecium occidentale</i>		<i>Brachythecium plumosum</i>		<i>Grimmia longirostris</i>		<i>Grimmia trichophylla</i>	
	Perm. imp.	% cont.	Perm. imp.	% cont.	Perm. imp.	% cont.	Perm. imp.	% cont.
BIO2	1.4	2.9	79.8	60.7	0	0	1.0	6.6
BIO3	0	0	0	0	0	0	0	0
BIO 16	0	0	0	0	0	0	0	0
BIO 18	0	0	0	0	0	0	0	0
BIO 19	0	0	0	0	0	0	0	0
Beer's aspect	0	0	0	0	0	0	0	0
Elevation	98.5	97.1	20.2	39.3	99.9	99.9	99.0	93.3
Slope	0	0	0	0	0.1	0.1	0	0
Topographic position index	0	0	0	0	0	0	0	0