

Appendix S5. BioGeoBEARS biome: details regarding model development, temporal stratification, and dispersal probabilities among biomes through time for BioGeoBEARS analyses of *Salvia*. See Appendix S2 for species coding.

Time periods file

4
14
37

Areas allowed file: B=broadleaf forest, C=coniferous forest, D=desert, arid shrubland, G=grassland, M=Mediterranean

B	C	D	G	M
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1

B	C	D	G	M
1	1	1	1	0
1	1	1	1	0
1	1	1	1	0
1	1	1	1	0
0	0	0	0	0

B	C	D	G	M
1	1	1	0	0
1	1	1	0	0
1	1	1	0	0
0	0	0	0	0
0	0	0	0	0

END

Manual dispersal probabilities file: B=broadleaf forest, C=coniferous forest, D=desert, arid shrubland, G=grassland, M=Mediterranean

B	C	D	G	M
1	1	0.069	0.310	0.069
1	1	0.276	0.103	0.0001
0.069	0.276	1	0.103	0.172
0.310	0.103	0.103	1	0.034
0.069	0.0001	0.172	0.034	1

B	C	D	G	M
1	1	0.069	0.310	0
1	1	0.276	0.103	0
0.069	0.276	1	0.103	0
0.310	0.103	0.103	1	0
0	0	0	0	0

B	C	D	G	M
1	1	0.069	0	0
1	1	0.276	0	0
0.069	0.276	1	0	0
0	0	0	0	0
0	0	0	0	0

END