

Additional file 5: Dispersal constraint matrices used for DEC and S-DEC analyses.

Probabilities were assigned similarly to Ward et al. (2015): 0.1 to adjacent areas, 0.5 to adjacent areas separated by a large body of water, and 0.01 to geographically disjunct areas.

T=Neotropical, N=Neartic, P=Palearctic, E=Afrotropical, O=Indomalayan, A=Australasian. The two time slices represent changing connectivity between these regions in accordance with paleogeographic estimates (Scotese 2010).

0-50 Ma	T	N	P	E	O	A
T	/	1.0	0.01	0.5	0.01	0.5
N	1.0	/	1.0	0.01	0.01	0.01
P	0.01	1.0	/	1.0	1.0	0.01
E	0.5	0.01	1.0	/	1.0	0.5
O	0.01	0.01	1.0	1.0	/	1.0
A	0.5	0.01	0.01	0.5	1.0	/
50-105 Ma	T	N	P	E	O	A
T	/	1.0	0.01	1.0	0.01	1.0
N	1.0	/	1.0	0.01	0.01	0.01
P	0.01	1.0	/	1.0	1.0	0.01
E	1.0	0.01	1.0	/	1.0	1.0
O	0.01	0.01	1.0	1.0	/	0.5
A	1.0	0.01	0.01	1.0	0.5	/