Table S4: BioGeoBEARS dispersal sinks and sources Number of dispersal (range expansion, e; jump dispersal, *j*) events for the three time slices (see Figure 3; 80 Ma, 40 Ma, 20 Ma and 0 Ma) from the DEC+TS+j model (see Table 3). Counts of events were averaged across the 100 biogeographic stochastic mappings (BSMs) with standard deviations in parentheses. Rows represent source ranges; columns represent dispersal sinks. Darker shades indicate a higher frequency of dispersal events. The sum and percent of events in each row and column are given on the margins. Regions are abbreviated as follows: A = Andean-Argentinian, B = Neotropical, C = Southern Africa, D = African, E = Madagascan, F = Northern Australia, G = Malesian, H = Indian-Indochinese, I = Neozealandic-Patagonian and J = Eurasiatic.

TS1 80-40 Ma - ALL dispersal (mean of all observed anagenetic 'a', 'd' and cladogenetic 'j' dispersals):

	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	
A	-	0.01 (0.1)	0 (0)	0.01 (0.1)	0 (0)	0 (0)	0.02 (0.14)	0 (0)	0.06 (0.28)	0 (0)	0.1 2%
B	0 (0)	-	0 (0)	0.02 (0.14)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.02 0%
C	0 (0)	0.03 (0.17)	-	0 (0)	0.01 (0.01)	0 (0)	0.03 (0.22)	0 (0)	0 (0)	0 (0)	0.07 0%
D	0.01 (0.1)	0.12 (0.33)	0 (0)	-	0.03 (0.17)	0.01 (0.1)	0.07 (0.26)	0.01 (0.1)	0 (0)	0 (0)	0.25 6%
E	0 (0)	0 (0)	0 (0)	0 (0)	-	0.01 (0.1)	0.21 (0.43)	0.02 (0.14)	0.01 (0.1)	0 (0)	0.25 6%
F	0.03 (0.17)	0.01 (0.1)	0.01 (0.1)	0.05 (0.22)	0.06 (0.24)	-	0.54 (0.67)	0 (0)	0.49 (0.58)	0 (0)	1.19 30%
G	0.37 (0.51)	0.04 (0.2)	0.08 (0.27)	0.28 (0.49)	0.33 (0.7)	0.6 (0.7)	-	0.03 (0.17)	0.02 (0.14)	0 (0)	1.75 44%
H	0 (0)	0 (0)	0 (0)	0.01 (0.1)	0.01 (0.1)	0 (0)	0 (0)	-	0 (0)	0 (0)	0.02 0%
I	0.08 (0.27)	0 (0)	0 (0)	0.02 (0.14)	0.01 (0.1)	0.24 (0.53)	0.02 (0.14)	0 (0)	-	0 (0)	0.37 9%
J	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	-	0 0%
	0.49 12%	0.21 5%	0.09 2%	0.39 10%	0.45 11%	0.86 21%	0.89 22%	0.06 1%	0.58 14%	0 0%	4.02 100%

TS2 40-20 Ma: ALL dispersal (mean of all observed anagenetic 'a', 'd' and cladogenetic ‘j’ dispersals):

	A	B	C	D	E	F	G	H	I	J	
A	-	0.38 (0.55)	0 (0)	0.01 (0.1)	0 (0)	0 (0)	0 (0)	0.65 (0.59)	0.44 (0.59)	0 (0)	1.48 15%
B	0.06 (0.24)	-	0 (0)	0.04 (0.2)	0 (0)	0 (0)	0.08 (0.27)	0.22 (0.42)	0 (0)	0 (0)	0.4 4%
C	0 (0)	0 (0)	-	0.08 (0.27)	0.09 (0.29)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.17 2%
D	0.02 (0.14)	0.07 (0.26)	0.26 (0.46)	-	0.96 (0.72)	0.04 (0.2)	0 (0)	0 (0)	0.01 (0.1)	0 (0)	1.36 13%
E	0 (0)	0 (0)	0.06 (0.24)	0.75 (0.64)	-	0.03 (0.17)	0.06 (0.24)	0.01 (0.1)	0.04 (0.2)	0 (0)	0.95 9%
F	0.01 (0.1)	0 (0)	0 (0)	0.37 (0.49)	0.25 (0.44)	-	0.87 (0.46)	0.03 (0.2)	0.73 (0.69)	0 (0)	2.26 0.22
G	0 (0)	0.69 (0.46)	0.01 (0.1)	0.03 (0.17)	0.27 (0.45)	0.27 (0.57)	-	0.46 (0.69)	0.01 (0.1)	0 (0)	1.74 17%
H	0.01 (0.1)	0.02 (0.14)	0 (0)	0.01 (0.1)	0 (0)	0 (0)	0.04 (0.2)	-	0 (0)	0 (0)	0.08 0%
I	1.22 (0.7)	0.1 (0.3)	0 (0)	0.05 (0.22)	0.07 (0.26)	0.23 (0.49)	0.04 (0.2)	0.01 (0.1)	-	0 (0)	1.72 17%
J	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	-	0 0%
	2.22 22%	1.26 12%	0.33 3%	1.34 13%	1.64 16%	0.57 5%	1.09 11%	1.38 14%	1.23 12%	0 0%	10.16 100%

TS1 20-0 Ma: ALL dispersal (mean of all observed anagenetic 'a', 'd' and cladogenetic ‘j’ dispersals):

	A	B	C	D	E	F	G	H	I	J	
A	-	2.23 (1.22)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.03 (0.17)	0.05 (0.22)	0 (0)	2.31 10%
B	4.01 (1.07)	-	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.07 (0.26)	0 (0)	0 (0)	4.08 17%
C	0 (0)	0 (0)	-	0.45 (0.77)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.45 2%
D	0 (0)	0 (0)	2.28 (0.87)	-	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2.28 10%
E	0 (0)	0 (0)	0 (0)	0 (0)	-	0 (0)	0.01 (0.1)	0.07 (0.26)	0 (0)	0 (0)	0.08 0%
F	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	-	1.06 (0.4)	0.1 (0.3)	0.9 (0.61)	0.05 (0.22)	2.11 9%
G	0 (0)	0 (0)	0 (0)	0 (0)	0.74 (0.44)	1.09 (0.74)	-	5.92 (1.35)	0 (0)	0.92 (0.27)	8.67 37%
H	0.01 (0.1)	0.05 (0.22)	0 (0)	0 (0)	0.25 (0.44)	0.23 (0.42)	2.68 (1.25)	-	0 (0)	0 (0)	3.22 14%
I	0.1 (0.3)	0 (0)	0 (0)	0 (0)	0 (0)	0.32 (0.51)	0 (0)	0 (0)	-	0 (0)	0.42 2%
J	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0.08 (0.31)	0 (0)	-	0.08 0%
	4.12 17%	2.28 10%	2.28 10%	0.45 2%	0.99 4%	1.64 7%	3.75 16%	6.27 26%	0.95 4%	0.97 4%	23.7 100%