

Table S 1. Vicariance and geodispersal data matrices generated for LBPA of TS1 and TS2. Numbered columns refer to nodes and tips on the stratocladograms (Fig. S1). Coding as in [31].

TIME SLICE 1

Vicariance																																																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	65	66	70	72																											
Ancestor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
Appalachian Basin	0	0	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	2	2	1	1	1	2	1	1	2	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
Central Basin	0	0	1	1	1	1	1	1	2	1	2	2	2	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1																						
Cincinnati Basin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1																						
N. Midcontinent	0	0	0	0	1	1	1	2	1	1	2	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
S. Midcontinent	1	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	2	1	1	1	1	1	1	2	1	0	0	0	1	2	1	1	2	1	1	1	1	2	1	0	0	0	0	0	0																							

Geodispersal																																																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	65	66	70	72																											
Ancestor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
Appalachian Basin	0	0	2	1	1	0	1	0	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
Central Basin	0	0	2	1	1	0	1	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2																						
Cincinnati Basin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1																						
N. Midcontinent	0	0	0	0	2	0	1	1	1	0	2	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																						
S. Midcontinent	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	1	0	0	0	1	1	1	0	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0																						

TIME SLICE 2

[illegible]