



**Figure S2** Critical recombination rate and invasion of  $A_1$  for a polymorphic continent. Dark grey: invasion of  $A_1$  via the unstable marginal equilibrium  $E_B$ ; light grey: no invasion of  $A_1$ , stable marginal equilibrium  $E_B$ . Numerical iterations of invasion dynamics were performed at coordinates indicated by grey symbols (File S2). Different symbols show which equilibrium is reached:  $\bullet E_+$ ;  $\circ E_B$ . Initial values for iterations were  $\{p_0, q_0, D_0\} = \{0, \hat{q}_B, 0\}$ , where  $\hat{q}_B$  is the frequency of  $B_1$  at  $E_B$ . The vertical dashed line indicates the pole of the function  $r^*(m)$  from Eq. (41). In the left column (A, D, G, and J), the selection coefficients are  $a = 0.01$ ,  $b = 0.04$  ( $a < b/2$ ), in the middle column (B, E, H, and K) they are  $a = 0.02$ ,  $b = 0.04$  ( $a = b/2$ ), and in the right column (C, F, I, and L) they are  $a = 0.03$ ,  $b = 0.04$  ( $a > b/2$ ). From top to bottom, the continental frequency of  $B_1$  increases and takes values of  $q_c = 0.01$  in (A)–(C),  $q_c = 0.2$  in (D)–(F),  $q_c = 0.5$  in (G)–(I), and  $q_c = 0.8$  in (J)–(L).