
Supplemental Figures

Figure C1: Values and stability of the singular strategies $s^*$ for various trade-off strengths ($\beta$) and environment composition ($q$), depending on adult ($d_A; X$-axis) and juvenile ($d_J; Y$-axis) strategies. Z-axis: values of $s^*$. Black, evolutionarily stable strategy (ESS; convergence stable [CS] and evolutionarily stable [ES]). Dark gray, branching point (CS, not ES). Light gray, repellor (not CS). For each pair of migrations ($d_A, d_J$), we count the singular strategies, study their stabilities, and deduce the type of evolutionary outcome; this yields figure 6.
Figure C2: Evolution in time for different pairs of adult and juvenile migrations ($d_a$, $d_j$) under a weak trade-off ($\beta = 0.9$) and in a symmetrical habitat ($q = 1/2$). A, Evolutionary outcomes (this is fig. 6A). B–E, Simulated evolutionary trees for particular values of ($d_a$, $d_j$). These deterministic simulations are iterations of equation (6), where mutants close to the residents are introduced at regular time intervals. There are 201 possible types with equidistant trait values. B, Monomorphism leading to the intermediate strategy $s_a = 1/2$. C, D, Polymorphism (branching). In D, $s_a = 1/2$ is a repellor. In C, $s_a = 1/2$ is attainable by gradual evolution; in our simulations, branching does not happen at $s_a$ because of the finite number of possible traits. E, Monomorphism, bistability. The different colors in B–E correspond to different initial values of the trait $s$. 
Figure C3: Evolution in time for different pairs of adult and juvenile migrations ($d_A, d_J$) under a strong trade-off ($\beta = 1.2$) and in a symmetrical habitat ($q = 1/2$). A, Evolutionary outcomes (this is fig. 6C). B, Monomorphism due to bistability. C, Tristability (monomorphism or polymorphism, depending on the initial conditions). D, Polymorphism (branching). The different colors in B–D correspond to different initial values of the trait $s$. 