



**FIGURE 16.8.** (A) The distribution of allele frequencies across a set of demes, each with  $N_e = 25$  and exchanging migrants at a rate  $m = 0.02$ . The demes all start at  $p_0 = 0.3$ ; the distribution is plotted at 1, 2, 4, 10, and 100 generations (red, dark green, green, blue, and purple lines, respectively). (B) The increase in variance of allele frequencies over time, measured by  $F_{ST} = \text{var}(p)/p_0q_0$ . The solid line shows how  $F_{ST}$  would increase toward 1 if there were no migration; the dashed line shows the increase toward an equilibrium  $F_{ST}$  of  $1/(1 + 4N_em) = 0.333$ , in a balance between drift and gene flow. (C) An example showing allele frequencies in each of ten demes. The average over the whole population of ten demes drifts much more slowly (black line).