



FIGURE 23.30. Mating types may evolve via loss of function at each of two loci. Initially, two molecules are required for fusion (A, B). Individuals that lose one of these (Ab, say) may gain an advantage, because they cannot mate with close relatives. For the same reason, the complementary genotype can also invade. Recombination between Ab and aB produces ab cells, which cannot mate at all. Tight linkage between the genes therefore evolves, which leads eventually to a population containing just two alternative mating types, Ab and aB.