CHAPTER 13 Answers to Questions

Question 13.1. The phrase "inbred" population is often used in the literature to mean a population with small N_e so that a substantial proportion of the matings will be between related individuals even if the population is randomly mating.

More correctly, however, an inbred population is one which is not mating at random so that matings between related individuals occur more often than we would expect by chance. Thus, a very large population of forest trees in which neighboring trees are likely to pollinate each other and seeds are not dispersed very far from mother trees so that nearby trees are likely to have the same mother would be inbred. This effect would be detectable by an excess of homozygotes ($F_{IS} > 0$) when we compare observed to expected Hardy-Weinberg proportions.